

A SCREW LOSING HAZARD

BILLIARDS

BY

MAJOR W. BROADFOOT, R.E.

WITH CONTRIBUTIONS BY

A H BOYD, SYDENHAM DIXON, W J FORD, DUDLEY D PONTIFEX
RUSSELL D. WALKER, & REGINALD H. R RIMINGTON-WILSON



*ILLUSTRATED by LUCIEN DAVIS, R I, and from PHOTOGRAPHS
also by numerous Diagrams and Figures*

New Edition

LONGMANS, GREEN, AND CO.

39 PATERNOSTER ROW, LONDON
AND BOMBAY

1906

All rights reserved

BIBLIOGRAPHICAL NOTE

First Edition printed March 1896

Reprinted September 1897, June 1900.

Cheaper Reissue, July 1901

Reprinted July 1901 and March 1902

New Edition January 1906

DEDICATION
TO
H.R.H. THE PRINCE OF WALES

BADMINTON : *May 1885.*

HAVING received permission to dedicate these volumes, the BADMINTON LIBRARY of SPORTS and PASTIMES, to HIS ROYAL HIGHNESS THE PRINCE OF WALES I do so feeling that I am dedicating them to one of the best and keenest sportsmen of our time. I can say, from personal observation, that there is no man who can extricate himself from a bustling and pushing crowd of horsemen, when a fox breaks covert, more dexterously and quickly than His Royal Highness ; and that when hounds run hard over a big country, no man can take a line of his own and live with them better. Also, when the wind has been blowing hard, often have I seen His Royal Highness knocking over driven grouse and partridges and high-rocketing pheasants in first-rate

workmanlike style. He is held to be a good yachtsman, and as Commodore of the Royal Yacht Squadron is looked up to by those who love that pleasant and exhilarating pastime. His encouragement of racing is well known, and his attendance at the University, Public School, and other important Matches testifies to his being, like most English gentlemen, fond of all manly sports. I consider it a great privilege to be allowed to dedicate these volumes to so eminent a sportsman as His Royal Highness the Prince of Wales, and I do so with sincere feelings of respect and esteem and loyal devotion.

BEAUFORT



BADMINTON

PREFACE

A FEW LINES only are necessary to explain the object with which these volumes are put forth. At the time when the Badminton Library was started no modern encyclopædia existed to which the inexperienced man, who sought guidance in the practice of the various British Sports and Pastimes, could turn for information. Some books there were on Hunting, some on Racing, some on Lawn Tennis, some on Fishing, and so on, but one Library, or succession of volumes, which treated of the Sports and Pastimes indulged in by Englishmen—and women—was wanting. The Badminton Library was produced to supply the want. Of the imperfections

which must be found in the execution of such a design we are conscious. Experts often differ. But this we may say, that those who are seeking for knowledge on any of the subjects dealt with will find the results of many years' experience written by men who are in every case adepts at the Sport or Pastime of which they write. It is to point the way to success to those who are ignorant of the sciences they aspire to master, and who have no friend to help or coach them, that these volumes are written.

To those who have worked hard to place simply and clearly before the reader that which he will find within, the best thanks of the Editor are due. That it has been no slight labour to supervise all that has been written he must acknowledge ; but it has been a labour of love, and very much lightened by the courtesy of the Publisher, by the unflinching, indefatigable assistance of the Sub-Editor, and by the intelligent and able arrangement of each subject by the various writers, who are so thoroughly masters of the subjects of which they treat. The reward we all hope to reap is that our work may prove useful to this and future generations

BEAUFORT

CONTENTS

CHAPTER	PAGE
INTRODUCTION	I
I HISTORY OF BILLIARDS TO 1896	6
<i>By Sydenham Dixon</i>	
<i>Continued, by Major Broadfoot, to 1906</i>	53
II IMPLEMENTS	63
<i>By Archibald H Boyd</i>	
III ELEMENTARY ONE-BALL PRACTICE	112
<i>With Memorandum by Dudley D Pontifex</i>	
IV. MOTION, IMPACT, AND DIVISION OF BALLS TWO-BALL PRACTICE	138
V PLAIN STROKES, WINNING AND LOSING HAZARDS, CANNONS THREE-BALL PRACTICE . . .	150
VI ON THE ROTATION OF BALLS . . .	197
VII MISCELLANEOUS STROKES . . .	223
VIII. THE SPOT STROKE . . .	266
IX SAFETY AND BAULK PLAY . . .	285
X BREAKS	302
<i>With Memoranda by Archibald H Boyd and R. H R Rimington-Wilson</i>	

CHAPTER	PAGE
XI THE CHAMPIONSHIP AND THE THREE-INCH POCKET TABLE <i>With Memorandum by Russell D Walker</i>	364
XII THE RULES OF THE GAME OF BILLIARDS	376
XIII. PYRAMIDS, POOL, AND COUNTRY-HOUSE GAMES <i>By W J Ford</i>	385
XIV MISCELLANEOUS NOTES	434
INDEX	445

ILLUSTRATIONS

(REPRODUCED BY THE SWAN ELECTRIC ENGRAVING CO.; WALKER
& BOUILLARD, P. NAUMANN, AND G. H. FORD)

PLATES

	ARTIST	
A SCREW LOSER . . .	<i>Lucien Davis</i>	<i>Frontispiece</i>
CHOOSING A CUE . . .	" "	<i>To face p 48</i>
PRELIMINARIES . . .	" "	" 112
OPENING THE GAME . . .	" "	" 138
A DISPUTED SCORE . . .	" "	" 150
IN OR OUT OF BALL	" "	" 198
THE LONG REST . . .	" "	" 266
A SERIOUS GAME NURSING THE BALLS	" "	" 302
A DIFFICULT STROKE . . .	" "	" 364
ARE THEY TOUCHING ? . . .	" "	" 384
A LADIES' BATTLE . . .	" "	" 438

ILLUSTRATIONS IN TEXT

	PAGE
MR. SAMSON'S SECTIONS OF A BILLIARD-ROOM . . .	72, 73
AN OUTSIDE BILLIARD ROOM . . .	111
SIRINGING	114

	PAGE
AN EASY ATTITUDE	115
THE BRIDGE	117
USING THE REST	121
THE BRIDGE (<i>Bouclée</i>)	137
INSTEAD OF LONG REST	156
HIGH BRIDGE FOR A CRAMPED STROKE	196
THE LEAP OR JUMP STROKE	254
WHEN PLAYER'S BALL IS NEAR A CUSHION	265
PREPARING TO PLAY BEHIND THE BACK <i>the right way</i>	316
PREPARING TO PLAY BEHIND THE BACK <i>the wrong way</i>	326
A NURSERY	351
PLAYING BEHIND THE BACK	362
A WINNING GAME	435

BILLIARDS



INTRODUCTION

TO THE FIRST EDITION

JUSTIFICATION for the appearance of a volume on the game of billiards as it is played early in 1896 is ample, for no treatise or manual exists in which modern developments are considered. Though this is so, it does not follow that the instruction in older works is unsound ; much may be learnt from some of them, specially about plain practice strokes, but the science of playing breaks has been completely changed since they were published. If, however, further warrant were needed, it is supplied in the neglect of most players, whether professional or amateur, of elementary facts concerning the motion of balls on a table ; and this, though ameliorated as regards professional players by constant practice and observation, obstructs both classes more than they think in the race for distinction. The best French players, from whom we have much to learn, recognise that the closer and more intelligent the study of the game, and the more nearly the implements reach perfection, the nearer do scientific theory and actual practice conform. Hence in this book considerable space is devoted to matters which may seem elementary and self-evident, but which are really the bases of sound knowledge, and of which amateurs (for whom the volume is primarily written) are for the most part completely ignorant. When the

behaviour of a ball under various influences is described endeavour is made to use the simplest language ; mathematical terms not generally understood are as far as possible avoided.

Several matters of importance to the game and in need of reform are discussed, the opinions of experts, amateur and professional, being occasionally quoted ; sometimes opposite views are stated, and efforts are made to consider duly those of all shades.

It is usual, and most of the contributors have not failed to conform to the fashion, to insist on the fact that more can be learnt from a player in an hour than from a book in a year, that an ounce of practice is worth a ton of theory, or some similarly original sentiment. Certainly no man can be made a billiard-player solely by the study of books any more than skill in shooting, fishing, or other sport, can be so attained ; but much may be learnt from a good manual, both by a beginner and by his instructor. By conforming to the arrangement of a book a system of teaching will be followed, and this, if sound, must help master and pupil.

The amateur who has played for years and acquired a bad style is more difficult to assist ; he is apt to find, whilst trying to correct faults and to play breaks, that he has lost his old certainty, and scores worse after than before instruction—a result which causes many to lose heart. But there is no need to do so ; the chance of improvement depends greatly on modesty and perseverance, whilst the case is hopeless in proportion to the presence of presumption and conceit. Some give in at this stage and revert to their former methods, others more resolute persevere and improve ; but it is hoped that both classes will find this book of service. Those who devote their whole attention to making the immediate stroke will be assisted by the practice recommended ; whilst the more ambitious will find advice which may in time enable them to play real breaks and thus derive fresh pleasure from the game.

Personal qualifications have so important an influence in billiards, that too precise definition of the stroke to be played

for is avoided. What is the game for one person is not necessarily the game for another, and each must use his own discretion. The qualities usually found in fine players are good nerve, quick and sound judgment, resolution, and temper under control, accompanied by fair sight, a fine touch, and sympathy between eye and hand. Of these some are the gifts of nature and cannot be acquired ; others may be improved by careful training. Nerve is little understood, but is strengthened by gaining certainty of play, which creates confidence ; yet there is always that which we cannot explain, but may call the 'personal equation' It is perplexing, but must not be ignored, and persons of the most slender experience will admit that they play better with one man than with another, though they cannot always account for the fact

Much care and time have been spent on the diagrams and figures, but absolute accuracy is not to be expected ; indeed, it cannot be attained, for the size of the table must be limited by that of a page, whilst for the sake of clearness the balls are shown on a larger scale, a consequence being some imperfection in the delineation of their indicated paths In the final chapter many matters connected with billiards are briefly noticed, amongst which are : the suitability of the game for ladies , the French or cannon game, which possesses advantages on account of the smaller size of table on which it is played ; and the duties of marker and referee. The observations about etiquette are specially commended to the careful consideration of readers. It is beyond doubt that the vastly inferior play of amateurs compared with professionals is in no small measure owing to laxity in behaviour, whereby attention is distracted from the game. If billiards is ever to be played finely in ordinary clubs, as strict order must be maintained as is usual in the card-room.

Obligations must be expressed to Mr. Boyd, Colonel Allan Cunningham, R.E., Mr. Dudley Pontifex, and Mr. Russell Walker for assistance in various ways ; and to M. Vignaux, whose admirable manual of the French game has been of special

service. To a less extent the volume is indebted to the works of Joseph Bennett and of other players ; but beyond all it owes much of whatever merit it may have to the assistance and advice of Mr. R. H. R. Rimington-Wilson. It is indeed impossible to overestimate the value of this aid, for his knowledge of the game and practical skill are united to a singularly sound judgment, and his help is enhanced by the kindness and courtesy with which it has invariably been accompanied. Acknowledgment is further due to Messrs. Burroughes & Watts and Messrs. Peall and Walder for practical help of great value.

The preparation of this manual was a difficult task which the writer would not have attempted without the co-operation just acknowledged ; and readers are besought to recollect, if disposed to resent an air of authority in giving advice, or a too evident want of respect for their knowledge and skill, that on every question of importance the recorded conclusions are the result rather of careful consideration by experts than an expression of personal opinion.

Passing on from these preliminary observations and acknowledgments, it should be at once said that no laborious compilation of the results of research is here given on the subject of the origin of the game of billiards, for the reason that this is obscure in the extreme. Many attempts have been made to trace its ancient history, but little success has resulted. In most books about it, reference is made to the well-known quotations from Spenser and Shakespeare ; whilst in 'Modern Billiards,' the American text-book, the historian plunges deeper into the mystery of the past, and tells how Cathire More, King of Ireland, who died A.D. 148, left 'fifty billiard-balls of brass, with the pools and cues of the same materials.' Besides this, he refers to 'the travels of Anacharsis through Greece, 400 B.C.,' during which a game which might have been early billiards was seen.

We may, perhaps, safely assume that the game is of considerable antiquity, a development from some primitive form played with balls on the ground. It may therefore, have been

evolved simultaneously in many countries, and have assumed minor differences as it grew older. Then, as intercourse became easier, one country may have borrowed from another what was thought desirable, with the general result that the similarities of the games of various countries are greater than the differences.

Undoubtedly, in 1896 the two great games are the English and the French, and each is indebted to the other.

From the lawn or courtyard the game was promoted to a table indoors, the bed was wooden, the cushions were stuffed with cotton, and there were pockets. The balls, of ivory or of wood, were propelled by wooden maces tipped with ivory, silver, or brass. Such a table is depicted in 'The Compleat Gamester,' by Charles Cotton (1674). Improvement for a long time after this date seems slow to those who contrast the strides made during the last half of the nineteenth century. The first step of importance was the substitution of the cue for the mace, and the invention of the leather tip by Mingaud, a French player, who early in the century was, it is said, imprisoned for a political offence, and during his imprisonment made the important discovery. Next came the application of chalk, with which Carr, who had some title to be called the first champion player of England, is generally credited. He was, moreover, a player of the spot stroke, in those days (about 1825) probably a recent invention. Position was maintained by a screw back or by follow, as the slow cushions did not admit of use after the modern manner. Carr is referred to in the following chapter.

CHAPTER I

HISTORY OF BILLIARDS

BY SYDENHAM DIXON

JUST as there were 'brave men before Agamemnon,' so, doubtless, were there good billiard players prior to Kentfield ; but we hear very little about them. One of the few whose name has been handed down to posterity is John—generally known as Jack—Carr. He was originally marker for Mr. Bartley, the proprietor of the billiard-tables at the Upper Rooms at Bath. When business there was slack, M^r. Bartley and Carr used occasionally to amuse themselves by placing the red ball on the centre spot, and attempting to screw off it into one of the middle pockets without bringing the red ball back into baulk. Such a stroke would be easier under the conditions then existing of slow list cushions and rough baize cloths than it is now, and for a long time Mr. Bartley was the only person who could accomplish it. At last he confided to Carr that he did it by striking his own ball upon its side. It seems pretty clear, therefore, that M^r. Bartley was the inventor of the side stroke and screw, but he appears to have made very little practical use of his great discovery ; whereas Carr, who soon outstripped his instructor in proficiency at this particular stroke, turned his knowledge to excellent account, and fairly astonished and mystified the frequenters of the billiard-room at Bath by the ease and certainty with which he brought off apparently impossible strokes. They were naturally anxious to learn the secret, and, after Carr had artfully roused their curiosity to its highest pitch by remaining obstinately silent on the subject

for a considerable time, he gravely informed them that his wonderful powers were entirely due to the use of a certain 'twisting chalk' that he had recently invented, and had then on sale. The demand for small pill-boxes filled with powdered chalk at half-a-crown per box was naturally enormous, and for a long time the wily marker reaped a rare harvest. If, as some have supposed, this was the first introduction of the custom of chalking the tip of a cue, the half-crowns were well invested, but, unfortunately, the weight of evidence goes to show that chalk had been in common use for this purpose for some time prior to Carr's smart stroke of business, and that he economically filled his valuable pill-boxes by grinding up some of the chalk provided by Mr. Bartley for the use of his customers

What with the brisk sale of the famous 'twisting chalk,' and the immense advantage that his knowledge of the power of screw gave him over all rivals, Carr must have been making a great deal of money about this time. Unhappily for his own prosperity, however, he was a desperate and confirmed gambler, and all that he made out of ivory in one form was lost through ivory in another. He never could resist 'flirting with the elephant's tooth,' and every shilling that he made was promptly lost at hazard. At last, fairly tired out by incessant losses scarcely broken by a single run of luck, and discontented with circumstances immediately connected with his professional pursuits, he determined to leave England and try his fortune in Spain. It might have been imagined that the latter country would have proved anything but a happy hunting-ground, and that the Dons, on falling victims to Carr's powers of screw, might have taken it into their heads to lay down their cues and to finish the game with knives. However, the Bath marker was evidently an excellent man of business, and the Spanish billiard-rooms proved veritable El Dorados to him. He made a tour of the principal towns, and succeeded in easily beating everyone with whom he played. The feats he performed by means of the 'side twist'—as the

screw stroke was formerly termed—amazed all who saw him play, and he managed to amass a considerable sum. Still, the old passion was as strong as ever, and once more proved his downfall. Spain was even more amply furnished with gambling-houses than England, and, as Carr's usual ill luck pursued him, all his doubloons vanished even more rapidly than they had been acquired ; he was compelled to return home, and finally landed at Portsmouth almost in rags 'Whether'—to use Mr Mardon's own words, and it is to his excellent book that I am indebted for much of my information as to these early exponents of the game—'players of those days' were less particular than persons of the present period is not for me to determine ; but it is no less strange than true that, even in so deplorable a garb, he no sooner made his appearance at the billiard-table than he met with a gentleman willing to contend ' In the 'gentleman willing to contend,' Carr, in his hour of direst need, must have found a very foolish person, for no man of average sense would have lost seventy pounds to an individual whose appearance loudly proclaimed that he did not possess the same number of pence, and who, therefore, could not possibly have paid had the issue of the games gone the other way.

The *dénouement* of this little episode fully confirms this idea. Quitting the room with the money in his pocket, Carr immediately proceeded to get himself fully rigged out in 'a blue coat, yellow waistcoat, drab small-clothes, and top-boots.' A little advice from the local Polonius was evidently sadly needed ; the attire was probably 'costly' and may have been 'rich,' but it was certainly 'express'd in fancy,' and decidedly 'gaudy' Arrayed in all this magnificence, Carr paid another visit to the same billiard-room on the following day, when he again encountered his victim The latter being, according to Mr. Mardon, 'a fine player and devoted to the game,' lost no time in challenging the stranger to play. This match naturally resulted as the other had done, and Carr again won a considerable sum. When play was over the gentleman remarked that

'he was truly unfortunate in having met with, on succeeding days, two persons capable of giving him so severe a dressing. Carr, making himself known, thanked the gentleman for the metamorphosis his money had occasioned, and wished him a good morning'

In 1825, Carr played a match against 'the Cork Marker,' at the Four Nations Hotel, in the Opera Colonnade. The latter was considered a very fine player in his day, and it is curious that no one seems to have known his name, for he is invariably alluded to under this somewhat vague designation. They played three games of 100 up, and, although Carr won all three, he was evidently encountering a foeman worthy of his steel, as 'the Cork Marker' reached 92 in the first game, and 75 in the third. In the second, however, he only got to 49, as Carr suddenly astonished the spectators by making twenty-two consecutive spot-strokes. This was naturally considered a most extraordinary feat, and, as an offer was at once made to back Carr against all comers for a hundred guineas a-side, he can fairly lay claim to being considered the first champion of billiards, or, at any rate, the first whose claim to the title rests upon anything like a solid foundation. Pierce Egan, in his 'Annals of Sporting and Fancy Gazette,' writes of him as the 'father of the side-stroke,' and though, as I have previously narrated, Mr Bartley was the discoverer of the stroke, Carr was undoubtedly the first man who realised its importance and turned it to practical account

I have been unable to satisfy myself whether Bedford and Pratt, two fine players who flourished in the first half of the nineteenth century, were contemporaries of Carr, or belonged to a somewhat later period, this, however, is a matter of small consequence. According to Mr Mardon, 'each was celebrated for quietude of demeanour and elegance of style,' and Bedford was 'graceful and unassuming, excelling in winning hazards, whilst all [strokes?] are made without apparent effort;,' his best break was 159. The same author gives the following amusing anecdote of Pratt, which will well bear repetition :

One evening, when most persons were enjoying their claret by the fireside, a gentleman presented himself in the billiard-room, where Pratt was seated alone. To a request whether he was desirous of playing, he replied in the affirmative. The lights were placed, and the parties took their stations at the table 'What game, sir, would you wish to play?' 'I will play,' replied the stranger, 'the game of 100 up; and, as it is my desire that you should be rewarded for your trouble, I will play for sixpence.' The game commenced; and, after the gentleman had once or twice struck the balls, he left his opponent's ball near the red, which, fortunately for Pratt, being on the spot, he continued to hole in the two corner pockets four-and-thirty times, beating his liberal antagonist a love game, 100 up!

To return, however, to Carr His challenge was soon taken up by Edwin Kentfield, of Brighton (better known as Jonathan), but Carr fell ill, and the proposed match never came off. Kentfield then assumed the title of champion, his claim to which was not disputed for four-and-twenty years. There is no doubt that Edwin Kentfield, who died in 1873, was very superior to most of his profession. He was a man of refined tastes, passionately devoted to horticulture, with which he was thoroughly conversant, and he had the shrewdness to see that the tables and all the accessories of the game which were in use when he began to play were very crude and imperfect, the tables having list cushions, wooden beds, and coarse baize coverings. He spent many years in improving tables, cushions, balls, cues, &c., and, thanks to his energy, and to the acumen of Mr. John Thurston—the founder of the present well-known firm of billiard-table makers, who thoroughly believed in Kentfield, and was always ready to support his views and carry out his suggested improvements—the old order of things was gradually superseded by rubber cushions, slate beds, and fine cloths.

All the newest improvements were naturally to be found in Kentfield's Subscription Rooms at Brighton, the appointments of which were wonderfully perfect, considering the date. In 1839 he published 'The Game of Billiards: Scientifically

Explained and Practically Set Forth, in a Series of Novel and Extraordinary, but Equally Practical, Strokes.' In his well-written and modest preface, Kentfield alludes to the 'many alterations and improvements that have been successfully introduced, and which have so greatly contributed to the state of perfection to which this noble amusement has at length arrived.' Compared with the tables that were in vogue before Messrs. Kentfield and Thurston began their improvements, their joint production did doubtless seem wonderfully perfect; yet this extract reads curiously in 1896, in the face of the extraordinary developments of everything connected with the game that have taken place within the last ten or fifteen years

Kentfield was acquainted with the spot stroke, and played it well, considering the then existing conditions. He devotes a very short chapter in his book to it, and describes four different methods by which it can be made. There are now nine entirely different strokes which may be brought into use in the course of a long spot break, but doubtless, in his day, several of the varieties of the stroke were absolutely impossible, owing to the comparative slowness of the tables. He did not, however, approve of the spot stroke, nor consider it billiards, and on this point was evidently of the same mind as the younger Roberts, who has recorded his opinion that a constant succession of big spot breaks 'would very soon kill the popularity and destroy the artistic position billiards has attained.' The thoroughly genuine nature of Kentfield's feelings on the subject may be judged from the fact that he caused the pockets of the tables in his rooms at Brighton to be reduced to three inches, in order to prevent spot strokes being made; and this, unless he materially increased the charge for each game, must have meant a considerable annual pecuniary loss to him. The table on which Kentfield constantly played is thus described: 'The table in the Subscription Room is extremely difficult. It is, perhaps, the fastest in England, and has pockets of the smallest dimensions (three inches). The spot for the red ball is barely

twelve inches from the lower cushion ; the baulk circle only eighteen inches in extent. On many tables the spot is thirteen inches from the cushion ; the baulk twenty-two.' It seems singular that, quite thirty years before the first championship table was manufactured, Kentfield should have put up almost a fac-simile of it in his Brighton rooms ; but probably John Roberts, senior, saw it there, possibly played upon it, and derived from it the idea of the table on which, in 1870, the championship was decided.

It is almost impossible, after this lapse of time, to form any trustworthy opinion as to the real strength of Kentfield's game, and it would be manifestly unfair to draw comparisons between him and any player of more recent date than the elder John Roberts. Let us first take the evidence of Mr. Mardon on the subject ; and I may here remark that Mr. Mardon's book—which was a very great improvement on any of its predecessors dealing with billiards—appears to have been primarily written with the view of giving immortality to the author's great game of 500 up with a Mr. Porker. This was played in Kentfield's rooms Mr. Porker, who conceded a start of 25 points, reached 495 to 475, and then Mr. Mardon ran out. A break of 25, even at the end of a game, does not seem such a very startling feat ; still, it was evidently considered as such in those days, and a diagram is given of each of the nine strokes which were comprised in this historical effort. One or two of these were somewhat singularly played according to modern ideas. In one of them, for example, the red ball was near the left top pocket, into which it was very easy to screw, and his opponent's ball was nicely placed about the middle of the table. Instead of making the losing hazard with a slow screw, which would have just brought the red ball down to the white, and left a capital chance of a good break, Mr. Mardon had a regular bang at it, doubled the red ball right down the table and up again, and, probably more by luck than judgment, finally left it almost in the jaws of the right-hand top pocket. This, however, is 'another story,' and I am keeping Mr. Mardon waiting

an unconscionably long time in the witness-box to give his testimony as to Kentfield's abilities as a player. He writes :

Were I to relate all the extraordinary performances of Mr. Kentfield at the period when list cushions and pockets of large dimensions were in vogue, the reader would imagine I was bordering on romance. On one occasion, when playing the winning game, 21 up, Mr. Kentfield gave his opponent 18 points, and won sixteen successive games. In playing the winning and losing game, 24 up, he won ten games, his adversary never scoring ! The games were thus played Mr. Kentfield, in playing off, doubled the red ball for one of the baulk corner pockets, placing his own ball under the side cushion. His opponent played to drop it into the corner pocket, failed, and left on each occasion a cannon ; that was made, and the games were all won off the balls ! At another time he was playing the non-cushion game, 16 up. On going off he twisted his ball into the corner pocket from the red and won in that manner six games, his adversary not having a stroke ! Desirous of ascertaining how many games of 24 up could be played within the hour, he commenced the task with a player of considerable eminence ;¹ and they completed thirty games within the specified time.* Forty-seven games of 100 up were also played in eight and a half hours. In a match that did not exceed two hundred games, he beat his opponent eighty-five love games.

Even allowing that the 'player of considerable eminence' was out of form, and that Kentfield had the table virtually to himself, 720 points in an hour was amazing,² and even the longer test, which works out at the rate of about 550 points per hour, does not compare at all badly with the rate at which our best players score at the present day ; so it seems curious that a performer of such ability should have continued for years playing games of 21 and 24 up, in which, as was almost sure to be the case, his opponent frequently never had a stroke. When John Roberts, senior, was fast coming into note as a great player, and

¹ If a man wants to play fast he would surely select the worst—not the best—player as antagonist.—W B

² It is difficult to believe in the possibility of scoring over 700 points in an hour with the imperfect implements then in use, half that number is probably nearer the truth.—W B

people were beginning to compare his powers with those of Kentfield, Mr. Mardon thus expressed his opinion on the subject :

I have been given to understand, within the last few months, that Mr. Roberts, superintendent of the billiard-rooms at the Union Club in Manchester, is considered by his friends of that neighbourhood to be equal to any player in England, and, in order to afford me an opportunity of judging of his skill, balls have been placed in situations of considerable difficulty, and I have been assured that hazards thus presented came quite within his power of cue. I have also been informed that, in playing a game of 100 up, his opponent, aware of, and dreading, his ability, ran a coup at 96 love, hoping, by so prudent and cautious a proceeding, to ensure winning the game. Mr Roberts, playing from the baulk circle, twisted into one of the corner pockets from the ball upon the spot, and made from a break so unpromising 102 points from the red ball alone ! Admitting, however, this information to be correct, still, wonderful and surprising execution does not constitute either a sterling or a successful player, and when I take into consideration the advantages to be derived from playing the game called ' One pocket to five,' and learn that Mr Kentfield has played upwards of fifty thousand games with one gentleman alone, I cannot but imagine that an experience so great, united with his matchless skill, must not only elevate him above all other players, but fully entitle him to the paramount laudatory remarks with which his name will be found to be associated. When I call to mind, and reflect upon, the wonderful execution displayed while playing the commanding game over the table, and the game of one pocket to one pocket *commanded*, I have no hesitation in saying that on such occasions his power of cue has gone beyond what even the imagination could embrace. I have seen him, like a man inspired, accomplish stroke after stroke, hazards and cannons, against which I, with my knowledge of the game, would have laid fifty to one ! From his cue I have witnessed that which I am confident I shall never see again ; and, although luminaries may shine forth in other spheres Mr. Kentfield, the electric light of mine, must, I think, dim their lustre and keep them in the shade

The only other witness I shall call is John Roberts, sen., who has left on record his opinion that Kentfield 'played a very artistic game, but possessed very little power of cue. He

depended on slow twists and fancy screws, and rarely attempted a brilliant forcing hazard. He gave misses, and made baulks whenever they were practicable, and never departed from the strict game.' This was not written until many years after all rivalry between the two men had ceased, and may, therefore, probably be accepted as a calm and unprejudiced opinion. At first sight it is difficult to reconcile the entirely opposite views of Mr Mardon and Roberts with regard to Kentfield's power of cue. The truth probably lies between the two extremes, for the former's judgment may have been slightly warped by intense admiration for his idol, whereas Roberts was possibly comparing Kentfield's power of cue with his own, which was almost phenomenal. The highest break that Kentfield ever made was one of 196, and his best spot break 57 consecutive hazards. It may be taken for granted that neither of these breaks was made on his three-inch pocket table ; nevertheless, they may still be regarded as very excellent performances. If, however, there are diverse views as to Kentfield's powers as a player, I have only been able to discover one opinion as to his merits as a man. Whether or not we may feel inclined to accept the dictum that genius is 'an infinite capacity for taking pains,' I think there is little doubt that Edwin Kentfield was a genius at billiards, whilst in other respects it is quite certain that he set a brilliant example to the players who followed him.

During the last few years of Kentfield's long and peaceful career, the fame of John Roberts was rapidly growing, especially in and near Manchester, and it became evident that at last, for the first time for four and twenty years, the champion would be called upon to defend his title. Roberts was born on June 17, 1826, and, as is bound to be the case with a really great player, had a cue in his hand long before he was tall enough to reach the table properly. Indeed, he was only nine years old when he began to play upon an old-fashioned table by Gillow, with a wooden bed and list cushions. This was at the old Rotunda, Bold Street, Liverpool, and he showed such remark-

able aptitude for the game that in six months he could give points to most ordinary players. His precocious ability appears to have been unknown to his father, until one day the two played three or four games together, and the youngster won by many points. Instead of being delighted with this display of juvenile talent, the old man, who was possibly a bad loser, concluded that his son must have been devoting far too much time to the game, and, lacking the shrewdness to perceive the possibilities that lay before so skilful a lad, apprenticed him to a carpenter. The boy stuck to this trade for a couple of years ; but his passion for billiards remained as strong as ever, and at the end of that time he ran away, thenceforth devoting himself entirely to what was unquestionably his proper vocation. His first engagement was as marker at Oldham, and it is evident that he must have improved very rapidly while there, for he could not have been more than fourteen years old when he played home and home matches with 'Pendleton Tom,' a professional player with considerable local reputation, and beat him in both. When he left Oldham he obtained a situation in Glasgow, and in 1844 played a match against John Fleming, a well-known billiard-table maker of that day, for 100*l.* a-side ; and here he met with his first reverse of any importance. They were playing 500 up, and when the game was called '485 all,' Fleming tried for a cannon and missed it, but fluked a six stroke and went out. Roberts then defeated Tom Broughton of Leeds, and this appears to have been his last match of any note during his sojourn in Glasgow. This ended in 1845, when he became manager of the billiard-rooms of the Union Club at Manchester, a position wh.ch he retained for seven years. This was very fortunate for him, as he no doubt had far more opportunities for practice than he had ever previously enjoyed, and it was while there that he learnt the spot stroke. The popular idea that he invented the stroke is, of course, an entire fallacy, for Kentfield, Carr, Pratt, and others were in the habit of playing it. It was taught to Roberts by Mr. Lee Birch, a member of the Union Club, who had seen it

played in London, and, being one of the best amateur players of the day, soon mastered it to the extent of being generally able to make a dozen or fifteen consecutive hazards. It is curious, by the way, how many amateur players attain this standard of excellence and never get any farther. If a man can habitually make this number of spot strokes, nothing but steady practice is required to enable him to make runs of fifty, seventy, a hundred, or even more, yet not one in a thousand has the resolution or perseverance to take this necessary practice. With Roberts it was entirely different. He at once realised that the stroke must give an enormous advantage to any man who could play it with something like certainty. For six months, therefore, he devoted himself almost entirely to it, and spent hundreds of hours at the top of the table.

When a man who united a natural genius for the game with indomitable perseverance thus set himself to master a particular stroke, there could be only one result, and I should fancy it was then—strong in the confidence engendered by his ability to play this deadly stroke—that he first conceived the idea of bearding Kentfield in his den, and challenging his long-undisputed supremacy. Mr Mardon's account of the first meeting of the rivals is as follows 'Arriving in Brighton, Roberts called on Kentfield. He informed him at once, in a manly, straightforward manner, who he was, and expressed a desire of playing a friendly game. He neither sought disguise nor secresy, and would willingly have shown the strength of his game to all who might have approached. Kentfield, on the other hand, was very desirous of avoiding publicity, and, taking Roberts into an adjoining room, locked the door and began a game' Then follow a few more lines in Mr. Mardon's usual rather high-flown style, the meaning of which, translated into the vulgar tongue, is that Roberts speedily discovered that his opponent was not really doing his best. This did not at all suit the man who had come from Manchester on a voyage of discovery, and Mr. Mardon tells us that he thus expressed his opinion on the subject: 'This, Mr. Kentfield, cannot be your

game ; to play such as this I can give forty in a hundred. If you are withholding your powers for the purpose of obtaining a bet, I am willing to recommence the game and to play you for five pounds' Those who knew the elder Roberts intimately may possibly accept this as the general purport of his remarks, but will entirely decline to believe that he did not express himself in far more vigorous and forcible language As, however, Mr Mardon states that the door of the room was locked, and that no one was present excepting the two principals, he could only have written his account of the scene from hearsay, and it differs considerably from Roberts's own version of the interview. This, given in 'Roberts on Billiards,' runs as follows

I remember perfectly my first meeting with Kentfield, better known as 'Jonathan' It was in the beginning of 1849, at Brighton, where I went on purpose to see him play. On entering his rooms I met John Pook, the present proprietor of the Cocoa-tree Club, who was at that time his manager After sending up my name, Kentfield came in and inquired my business. I told him that I was admitted to be the best player in Lancashire, whence I had come to find out if he could show me anything. He inquired if I wanted a lesson I told him I did not, and asked him how many in 100 would be a fair allowance from a player on his own table to a stranger, provided they were of equal skill. He replied '15,' I told him I thought 20 would be nearer the mark, but I was contented to try at evens. He said : 'If you play me, it must be for some money ;' on which, not to be frightened, I pulled out a 100*l.* note, and told him I would play him ten games of 100 up for 10*l.* a game. He laughed, and said I was rather hasty ; and eventually we knocked the balls about, and then commenced a friendly 100 on level terms He had the best of the breaks, and won by 40. In the second game I pulled out a few north-country shots and won by 30, but he secured the third. Then he put down his cue, and asked if I was satisfied he could beat me I said 'No ; on the contrary, if you can't play better than this, I can give you 20 in 100 easily' He replied : 'Well, if you want to play me, you must put down a good stake.' I asked how much, and he answered 1,000*l.* I said 'Do you mean 1,000*l.* a-side ?' Upon which he told me he thought I was a straightforward fellow, and he would

see what could be done. He then sent Pook back to me, and I explained to him how things stood. He replied. 'You may as well go back to Lancashire; you won't get a match on with the governor.'

Accepting Roberts's version of this historical meeting, one is forced to the conclusion that, if one of the two was not trying to win, it certainly was not Kentfield; for when a man loses two games out of three on level terms, and then calmly tells his victorious opponent that he can easily give him 20 in 100, it is certain that the loser must have been keeping a very big bit up his sleeve. Evidently Kentfield was fully alive to this, for all efforts to get him to make a match proved fruitless.

The fact of the matter undoubtedly was that Kentfield, who was many years the senior of the pair, felt that the coming man was too strong for him, realised that he had everything to lose and very little to gain by risking a contest, and preferred the title of 'retired champion' to that of 'ex-champion.'

John Roberts, therefore, attained the first position in the world of billiards in 1849, and in the following year, whilst he was still manager of the billiard-rooms at the Union Club, Manchester, played a great match of 1,000 up with Starke, an American. The latter was a remarkably fine nursery cannon player, and, getting the run of the balls in the early part of the game, reached 600 to 450, thus securing a formidable lead. Then it was that Roberts first reaped the reward of all the time and patience he had expended on the practice of the spot stroke. Wisely abandoning the all-round game, he devoted his energies to getting position at the top of the table, a break which included thirty-nine consecutive 'spots' took him to the front again, and another fine run of thirty-six red hazards gave him an easy victory. In a letter to 'Bell's Life' on the subject of this match, one of the best contemporary judges of the game gave it as his opinion that 'Kentfield showed good judgment in declining a match with Roberts, for, had they played upon a neutral table, he would have been defeated to a certainty.' Even Mr. Mardon completely altered his mind with regard to

the respective merits of the two players, and to his second profession of faith he probably remained steadfast until the day of his death ; for, as comparatively recently as the early part of 1874, he wrote a letter to the 'Sporting Life' on the subject of billiards, in which he strongly maintained the superiority of old John over his son, William Cook, and Joseph Bennett

It is doubtful whether, at the period of which I am now writing, the title of champion was of much pecuniary value to its possessor. He could only get an occasional match for money by giving a very long start, whilst such things as exhibition games seem to have been of very rare occurrence. In glancing over the files of 'Bell's Life'—the only sporting paper then in existence—say from 1850 to 1860, one cannot fail to be struck with the way in which billiards is practically ignored ; in fact, it was some time before I could find any allusion to the game. At last, in the issue dated February 22, 1852, I discovered the following announcement · 'A silver snuff-box will be given by the proprietor of the Shakspeare's Head, Wych Street, Strand, to be played for by eight of the best players in London, on Tuesday next, at six o'clock. A gentleman from the country will be in attendance to play any man in London for from 25*l.* to 50*l.* the same night' The most rigid examination of the issue of the following week—in those days sportsmen had to content themselves with one sporting paper, which came out once a week—failed to discover the smallest record of the doings of 'eight of the best players in London' on that Tuesday evening, and the destination of the silver snuff-box might have been for ever lost to posterity but for the appearance of the following challenge : 'Mr. John Dufton will play Mr. Farrell, the winner of the snuff-box at the Shakspeare's Head, Wych Street, on Tuesday last, a match at billiards, from 100 to 1,000 up, for 10*l.* or 20*l.* a-side. Money ready any evening at the above-named place.' It is probable that the challenger was a relation of the well-known William Dufton, 'tutor to the Prince of Wales,' as he always proudly styled himself, though I must candidly confess that I had never previously heard either

of him or of Farrell, entitled as each may have been to rank amongst the eight best players in London. It was not, however, the battle for the snuff-box that interested me. I was anxious to know how the countryman fared on his adventurous crusade, and had a suspicion that he may have turned out to have been no less a personage than the champion himself, this being just the sort of little joke that John Roberts always enjoyed. However, my curiosity on this point had to remain unsatisfied, and I ceased to be surprised that it should be so when I found that in the same issue of 'Bell's Life'—which in those days was supposed to devote a good deal of its space to events of general interest other than sporting—the death of Tom Moore, the sweetest singer Ireland ever produced, was dismissed in exactly five lines !

In this same year (1852) Roberts resigned the management of the billiard-rooms at the Union Club, which he had held for seven years, and took the Griffin Hotel in Lower Broughton, a suburb of Manchester. Soon after this he played two more matches with Starke at the American game, each of them being for 100% a side. It is noteworthy, as marking the rapid manner in which he had 'come on' in his play, that whereas, only two years previously, Starke had played him upon even terms, and at one stage of the game looked very much like beating him, it was now thought good enough to back Roberts to give a start of 300 in 1,000. This proved rather too big a concession ; nevertheless, little mistake had been made in estimating the respective merits of the two men, for in the return match, in which the start was reduced to 275, the champion won very easily. The billiard history of the next few years is singularly uneventful, and there appear to have been few players good enough to have any chance with Roberts, even when allowed a long start. He, however, did not retain the Griffin Hotel very long, and, after leaving it, took billiard-rooms in Cross Street, Manchester. He must have been living there in 1858, when he played a match with John Herst in Glasgow, in the course of which he made a break of 186, which

included a run of 55 consecutive spot strokes. Herst was a brilliant winning-hazard striker, and played in very pretty and finished style. Great things were expected of him, and there is every reason to suppose that these expectations would have been realised, but he died almost at the outset of his career. In 1861 Roberts at length left Manchester, to become lessee of Saville House, Leicester Square, and he had not been there many weeks when he played a match with Mr. Downs, an amateur, to whom he conceded a start of 700 in 1,000. In the course of this game, which he won by 93 points, he made two very fine breaks of 195 (53 'spots') and 200 (64 'spots'), and scored his thousand points in 2 hours 11 minutes, an excellent performance, notwithstanding the fact that he must have had the table virtually to himself. A rather curious episode occurred in the course of this game. Mr. Downs, in lieu of giving the customary miss at the beginning of the play, ran a coup, expecting that Roberts would give a miss, and very probably calculating that, with his big start, to give three and receive one was really judicious. The champion, however, instantly grasped the situation, and, without a moment's hesitation, played hard at the red, and sent it and his own ball flying to the other end of the room. In those days there was no penalty for knocking a ball off the table, so Mr. Downs's carefully calculated and promising scheme of running a succession of coups and receiving a series of misses was summarily nipped in the bud. It was at Saville House in March 1862 that Roberts made his famous break of 346, mainly composed of a series of 104 spot hazards. William Dufton was his opponent, and Roberts won the game in the remarkably fast time of an hour and three-quarters. This break was more than a nine days' wonder, and never before or afterwards did Roberts make 300 off the balls in public—a feat that is now well within the compass of plenty of men who do not play well enough to get a couple of engagements per season in exhibition matches.

Two of the most prominent players in the 'fifties' and early

'sixties' were Alfred Bowles and Charles Hughes. Roberts considered the former to be the best player he ever met, and records that 'no one yet has ever held me at the points as Bowles used to do.' The points alluded to were 300 in 1,000 ; but it must not be forgotten that these remarks were written before William Cook, John Roberts, jun., and Joseph Bennett had come to the front. I never saw Bowles play until he challenged the younger Roberts for the championship and suffered an easy defeat. This was in May 1870, when the Brighton man had possibly seen his best day. He played a steady, old-fashioned game, but was hopelessly out-classed by young John, and, though he could play the spot stroke well, of course he had no opportunity of doing so on a championship table. From what I saw of the play of the two men, I should unhesitatingly place Charles Hughes before Bowles, but it would be ridiculous, with the very limited opportunities I had of forming an opinion, to oppose my judgment to that of Roberts, and certainly the results of two matches that were played in the early part of 1864 point strongly to the superiority of Bowles. In January of that year Roberts gave Bowles 300 in 1,000 for 100*l.* a-side—in those days 100*l.* a-side meant 100*l.* a-side, not that each man went through the solemn farce of staking his money, and received it back again at the end of the game, whatever the result might be—and was beaten by 109 points ; whilst, two months later, the champion conceded Hughes 350 in 1,000, and beat him by no fewer than 243 points. There can be no doubt, however, that Hughes improved wonderfully between the date of this match and 1869, when he sailed for Australia. The weak point in his game was an irresistible inclination to go out for fancy cannons. He would be apparently well set for a really good break when he would neglect a comparatively simple shot for some elaborate cannon off three or four cushions, which he would either just miss or perhaps bring off, with the result of leaving the balls in an almost impossible position for a further score. He was gradually, however, getting over this propensity towards the

close of his career, and undoubtedly played a very good game indeed at the time that he left England. Just prior to sailing he ran into the last three of a great professional handicap which took place at the 'Nell Gwynne,' Strand, in which, together with Cook and Roberts, jun, he started at scratch, whilst the champion owed 50 points, and, as there were as many as forty players engaged, this was a capital performance. He also won a handicap of 200 up, which was played to celebrate the opening of the Bentinck Club, upon the site of which the Vaudeville Theatre now stands. In this he received a start of 30 points, the champion owed 20, whilst his son and Cook had 20 each. The best thing he ever did, however, was accomplished in the last game he played in England. He sailed from Liverpool, and, as Roberts had gone down to see him off, the pair took advantage of the opportunity to play 1,000 up at the 'Golden Lion,' Deansgate, Manchester. Roberts, as usual, gave a start of 300, and had reached 736 against 794, when Hughes went out with a break of 206, which included 62 consecutive 'spots.' Being asked to finish the break, he added 21 more red hazards, and this 269 was a bigger run than anyone had put together since the champion had made his famous 346 about seven years previously. I can find no record of Hughes's achievements in Australia, but he did not long survive his arrival in that country. As has been the case with too many other fine players, he lacked the resolution and strength of mind to take proper care of himself, and the lavish colonial hospitality which was thrust upon him at every turn speedily killed him.

In the limited space at my disposal it is manifestly impossible to follow the game closely, year by year, and I think the better plan will be to give a sketch of all the principal players, including some account of the most important matches that have taken place since 1870, at nearly all of which I have been fortunate enough to have been present. In 'Roberts on Billiards,' which was written towards the close of the author's twenty-one years' tenure of the championship, he names Charles

Hughes, John Herst, Joseph Bennett, William Cook, and John Roberts, jun, as candidates for the title of second-best player, and adds, 'probably the two best are William Cook and my eldest son' The first and second I have already dealt with ; the other three, who kept the championship entirely between them during fifteen years, naturally demand more extended notice, as their doings really form the greater part of the history of billiards from 1870 onwards. Before coming to them, however, it will be better to dispose of what Roberts terms the third class, in which he includes William Dufton, L. Kilkenny, W. D. Stanley, W. E. Green, George Mulberry, Alfred Hughes, George Davis, W. C. Hitchin, Tom Morris, Harry Evans, and John Smith, 'to any of whom I have been in the habit of allowing 350 in 1,000.' Of these, I never saw Stanley—who, I fancy, was an elder brother of D Richards and S. W. Stanley—Mulberry, Davis, Hitchin, or Smith play, and will not, therefore, write anything about them. With respect to Dufton, I feel bound to say that, in my opinion, he was a much overrated man. As I saw him perform for the first time in 1866, when it is possible that he may have been going off, I should have hesitated to write so plainly, had not my view of his lack of ability been fully confirmed by one who constantly played with him, and for whose judgment I have the highest respect. His long 'jennies,' on the making of which his reputation almost entirely rested, are now easily within the compass of any professional player, and he would never have made the name he did but for confining his play almost entirely to exhibition games with Roberts. These exhibition matches would naturally have lost much of their attraction if the champion had invariably won, so Dufton had his share of successes, and came to be regarded as being able to play Roberts with 350 points in 1,000 ; whereas it is perfectly certain that a start of half the game would not have brought them together when the scratch man was doing his best. L. Kilkenny kept pace fairly well with the remarkable development of the game that took place between 1870 and 1880, and managed to hold his

own with a reasonable start from the rising stars. He possessed little power of cue and no brilliancy of execution, but played a sound, steady game, and, before spot-barred games became so universal, could generally be relied upon for a pretty good run of 'spots' when he obtained a favourable position. Deprived of the strongest part of his game, however, he soon fell out of the ranks. Alfred Hughes was a player of no class compared with his brother Charles, and Tom Morris, a left-handed man, with a somewhat flashy style, was only moderate. Harry Evans, on the contrary, was a thoroughly sound performer, who played an excellent all-round game, and, if he did not go out for gallery strokes, seldom or never missed an ordinarily simple one. Soon after his arrival in Australia he suddenly came out as quite a phenomenal spot-stroke player, though he had never so distinguished himself in England, and he held the championship of that colony for many years, till quite recently deprived of it by Charles Memmott.

About 1866 John Roberts, jun., William Cook, and Joseph Bennett began to draw away from the ruck of billiard-players, and it did not require much foresight to predict that old John would shortly find a dangerous rival or two, though it was difficult at the time to believe that anyone would have the temerity to meet him upon even terms. In the October of that year a great four-handed match took place, the champion and Dufton attempting to give 200 in 1,000 to Charles Hughes and Joseph Bennett for 200*l.* a-side, an attempt in which they failed lamentably, being beaten by no fewer than 344 points. Though Hughes scored 497 points during the game, whilst Bennett only contributed 281, the major portion of the credit of the victory must be given to the latter, who, till 1905, was the only surviving member of the quartette. Always remarkable for his fine generalship and wonderful knowledge of the game, Bennett never displayed these qualities to more advantage than on this occasion. He played in front of Roberts, and, although he made a few breaks of twenty or thirty, his sole mission was never to allow the champion a fair opening.

Directly he had a stroke which it was not three to one on his making, he at once abandoned the break, and either put down the white and left a double baulk or else gave a miss. Roberts's game, in fact, was so utterly cramped from start to finish that it was a remarkable feat on his part to make 488 points during the evening. In the meantime Hughes was thoroughly enjoying himself. Having only Dufton to follow him, and well knowing that it did not much matter what sort of a game he left on, he went out for everything, brought off all sorts of fancy cannons, and scored the fastest of the party. Poor Dufton's show was a very lamentable one. From the style of game that Hughes was playing, he naturally left any number of good openings, but all that Dufton could total during the evening was 136. By Bennett's clever strategy the four-handed match was virtually reduced to a single-handed battle between Hughes and Dufton, and this could only have had one result, even had they played upon level terms.

It was at the end of 1868 that William Cook and John Roberts, jun., between whom there was destined to be such keen rivalry for the next twelve or fifteen years, played their first match for money, Cook being at that time just nineteen years of age and his opponent two years older. The match took place at the Bentinck Club, and produced a very large amount of speculation. It is quite needless to give any description of the game, which Roberts won by 92 points, but it is noteworthy that his best breaks—at the all-in game, he it remembered—were 120 and 99, whilst Cook's highest effort only reached 92. This contrasts very curiously with the state of affairs early in 1896, when, in a spot-barred game of 1,000 up, it would be quite safe to back a player of the calibre of D. Richards or H. W. Stevenson to make three breaks of upwards of a hundred each. In spite of this defeat, Cook's friends did not lose faith in him, and, in his inmost heart, I believe that Roberts, sen., always rated Cook's play at a higher level than that of his son. I remember having a chat with the old man on this subject at the Bentinck Club. Young John had just

beaten Cook pretty easily in their heat of the handicap with which the opening of the club was celebrated, and this, coupled with his recent success in the match just referred to, led me to remark that there could be little doubt as to who would be future champion. 'I'm not so sure of that,' said the veteran with a shake of the head; 'we've not seen the best of Cook yet.' Before the end of that year his opinion was amply justified. In March a return match was played, in which, though the breaks on both sides were very small, Cook beat Roberts, jun., by 323 points, and when the former began playing again after the summer recess the improvement he exhibited was simply extraordinary. His beautiful delicacy of touch was more striking than ever, and he 'nursed' the balls with even more than his old skill, but in his anxiety to secure position he did not so frequently miss the immediate stroke, which had formerly been the weak point in his game. Then he had attained a proficiency in playing the spot stroke that entirely eclipsed anything that had previously been witnessed in this line, and three times in one week, with young Roberts as an opponent, he made upwards of three hundred off the balls. Two of these breaks—351 at the Royal Hotel, Dale Street, Liverpool, and 359 at the Prince of Wales's Hotel, Moss Side, Manchester—beat the champion's 346, which for seven years had been considered quite unapproachable. After this, Cook seldom played two games of 1,000 up without making a break of 300 in one of them, and left his old rival, John Roberts, jun., completely in the rear. There could only be one end to this series of remarkable performances, and in the autumn of 1869 Cook issued a challenge to play the champion, on or before January 1, 1870, a game of 1,000 or 2,000 up, level, for 500*l.* a-side. Some little time elapsed before the two men came to terms, and it was decided by a committee of the leading players of the day that matches for the championship should be played on a table with three-inch pockets, and with the spot $12\frac{1}{2}$ inches from the top cushion, instead of $13\frac{1}{4}$ inches, the then customary distance. As Cook

was a member of the committee which decided on this radical alteration in the table, it seems strange that he did not protest strongly against a measure which nearly every expert at once realised must deprive him of the strongest feature of his game—the spot stroke—but the reason was that he apparently did not realise the fact. Cook was then barely twenty-one years of age, but he ought to have had sufficient experience to have saved him from such a mistake. Before he had been playing on the new table for an hour, his error must have been brought home to him in very unpleasant fashion.

Just as the great battle at Farnborough between Sayers and Heenan was read about and eagerly discussed by all sorts and conditions of men who had previously professed the greatest disgust for prize-fighting, so the match between the veteran and his pupil excited intense interest, even amongst people who could scarcely define the difference between a winning and losing hazard. The then Prince of Wales was present at St. James's Hall, and, as no such scene had ever previously been witnessed at a billiard match, and may never be seen again, I need not apologise for reproducing part of a sketch of the memorable night contributed by myself at the time to one of the last numbers of the famous old 'Sporting Magazine,' which ceased to exist at the end of 1870 :

For the last five or six years the champion has made no very long break nor any great number of successive 'spots,' whilst his son, Joseph Bennett, and Cook, especially the last-named, have frequently put together a very big score off the balls. People at last began to realise the idea that the title of 'second-best player in England' would not long satisfy one or two of the colts, and were not altogether surprised when Cook challenged his old master for 500*l* a-side. Roberts took a long time to reply to this cartel, and it was believed that another walk-over would take place—for as yet there had never been a match for the championship ; but at length he made up his mind for one effort to retain his place, and they agreed to play on February 11. Prior to that day a meeting of the leading professionals was held. Rules were drawn up for future contests. . . and some important alterations were made in

the construction of the tables to be used in matches for the championship, with what results we shall presently see.

The match was played in the large concert room at St. James's Hall.

Just before eight o'clock the spectators settled down into their places, and the scene was a truly remarkable one. The table, which looked very small in such a huge hall, was of course placed in the centre, and, about three yards from it, a cordon was formed by a scarlet rope, so that a 'clear course' was secured for the combatants, even if 'no favour' could not be guaranteed. Outside this rope the tiers of benches began, and sloped up to the galleries. Every seat was occupied, and the galleries themselves accommodated a very large number of spectators, many of whom had provided themselves with opera glasses, a new concomitant to a billiard match, but a very necessary one on this occasion. Shortly after eight o'clock the calls of 'time' became very loud and impatient, and, with a view of creating a diversion, someone who appeared to have the chief management of the affair began to weigh the balls. He spun out this operation in very clever fashion, and kept the people quiet for nearly ten minutes, but at last they grew tired of seeing him hold up the scales, and remain immovable, apparently wrapped in astonishment that the balls should exactly balance each other, and the noise became worse than ever. At length the two men appeared, without their coats, and apparently 'eager for the fray.' They were received with uproarious applause, which seemed to delight Roberts immensely.

At the beginning of the game caution prevailed, and the tight pockets puzzled both men.

At 127 Cook made six 'spots,' the longest run of the evening; but the new-fashioned table seemed to have quite destroyed his pet stroke. The red ball required to be played with the greatest care, or it did not go in, and, owing, we imagine, to the change in the locality of the spot, it seemed almost impossible to secure position for the second stroke, even if the first came off. Both men had several tries at it, but they could make nothing of their old friend, and the last half of the match was practically played 'spot hazard barred.' The contrast in the style of the two was very noticeable, Roberts's being as clumsy and awkward as Cook's was

pretty and elegant, the latter playing, as someone near us observed, 'a very genteel stroke.' The men were very level at about 450, and then the champion got in, with Cook's ball and the red almost touching each other, and quietly dribbled them down the table, making six or seven very pretty cannons in succession. He followed this up with a regular 'gallery' stroke, potting the red at railroad pace, and making a cannon off two or three cushions, which brought down the house. A break of 22 by Roberts made his score 494 against 495. The announcement of '517 all' produced great cheering, however, 44 and 49 by Cook soon placed him in front again, and, as soon as he passed 600, there was a short interval.

The men soon came back, Roberts decorated with a cross, 'wearing it for the last time,' as one of Cook's backers grimly remarked. A magnificent 'all round' 80 took the young one to 785. The knowledge of strength shown in this break was truly wonderful, and there was a thin 'loser' in it which even Roberts felt compelled to applaud. There was soon a gap of a couple of hundred points between them, and the champion kept looking up mournfully at the figures at the end of the hall. He never lost heart, however, and, laying himself down to his work, began to creep up again. Cook's score stood still for some little time, and the old man's backers got very excited. Roberts now made 62, his longest break during the game, and two or three other good runs brought him close to Cook, whom he passed, the score being called 1,041 to 1,037 in favour of Roberts: but a 31, finished with a double baulk, placed Cook well in front again, and, when his score stood at 1,133, he made a horribly fluky cannon, and ran right out, with a succession of the easiest and prettiest stokes we ever saw, a winner by 117 points.

Here I prefer to take leave of John Roberts, sen.; for, although he occasionally played in public for several years after, he never again exhibited anything approaching his best form. It almost seemed as though he had wound himself up for one great effort to retain his supremacy, and that he never recovered from the consequent reaction; added to which he was then forty-four years of age, and had consequently seen his best day. In his prime he was a man of extraordinary strength of constitution, and performed several feats of endurance which probably no professional

player of the present day could approach. Perhaps the most remarkable of these was accomplished in 1846, when he had rooms in Glasgow, and an amateur, who was in the habit of frequenting them, made a match to play him on the following conditions : Roberts was to concede sixty points in each hundred, mark the game, hand the rest, spot the red, take the balls out of the pockets, &c., and in fact do the work of both player and marker. They were to continue playing until one of them stopped voluntarily or through exhaustion, but I have been unable to ascertain whether or not they were allowed to eat and drink during the progress of the match, though the probability is that there were no restrictions in this respect. The stakes were ten shillings per game : whoever gave in first was to forfeit 25%. and all claim to anything he might have won. Roberts was at that time in full play, and doing strong work round the table for several hours in each day ; but his opponent could not have been far behind him in this respect, and must have been a remarkably game man into the bargain, for he struggled on for forty-three consecutive hours before Nature gave way, and he fainted from exhaustion. In that time no fewer than 125 games were played, and Roberts won a good stake, every penny of which he had certainly earned. Differing entirely from Kentfield in this respect, he possessed extraordinary power of cue and a wonderfully strong wrist, which enabled him to perform all sorts of curious feats, such as knocking both balls off the table and making them reach the end of a long room before touching the floor. His worst fault was a too flashy style of play, and I shall always believe that he would just have beaten Cook in the great match for the championship if he had kept himself a little quieter during the game ; but he could not resist incessantly chaffing his friends, chalking bets on the floor, &c. Comparison between Roberts's form and that of the leading players of the present day would be most unfair to the old man. Had he lived fifty years later than he did, and enjoyed all the advantages of the improvements that have been made in the accessories of

the game, as well as the opportunities that leading players enjoy of constant practice, it is certain that he would have been found right in the front rank. He had a real genius for the game, and was a great player.

Immediately after winning the championship Cook had a very busy time of it. He played John Roberts, jun., the best of twenty-one games of pyramids, the result being that, after they had won nine games each, Roberts secured the next two and won the match, which virtually decided the championship at pyramids. Then Cook toured for a few weeks, and, in the course of an exhibition game with S. W. Stanley at Totnes, made the hitherto unparalleled break of 512. On April 14, 1870, just two months after he had wrested the championship from the elder Roberts, Cook lost it to Roberts, jun. The length of the game was wisely reduced from 1,200 points to 1,000, and Cook was beaten by very nearly half the game. This is one of the few contests for the championship that I did not witness, and I have never been able to understand the result ; for, although Roberts won by 478 points, and scored his thousand in three hours and four minutes, which was the fastest time recorded for a three-inch-pocket table until the last match ever played for the championship fifteen years later, a 47 was the best break he made during the whole evening ! Of course, it must be remembered that the winner had the table virtually to himself, for Cook must have been utterly and hopelessly out of form. Six weeks later, Alfred Bowles, of Brighton, a contemporary of Roberts, sen., challenged the winner. It is probable that Bowles, though I believe he is still alive, had then passed his best day, for the result of his plucky challenge was disastrous. He played a good, sound old-fashioned sort of game, devoting himself chiefly to runs of losing hazards in the middle pockets, but had not the smallest pretensions to meet a man of the class of Cook or Roberts on even terms, and never possessed the least chance all through the game. The next challenger, however, was of very different calibre, and the battle between Roberts—as I

have now taken leave of the father, it is needless to constantly repeat the distinguishing 'junior'—and Joseph Bennett was about the most obstinately contested of the entire series. It lasted for four hours and three-quarters, and Bennett, with repeated safety misses and double baulks, at last fairly wore down his formidable opponent, and won by 95 points. Thus ended 1870, a truly remarkable year, which not only witnessed the first match ever played for the championship, but in which the title was actually held by four different men.

To trace the progress of the game minutely from this point to the present time, and to attempt even to mention the principal matches that have been played, would occupy too much space, and I must, therefore, content myself with giving slight sketches of the chief players from 1870 to 1895, alluding to a few of the most remarkable matches. At the earliest possible moment—the two months which were allowed when the conditions governing contests for the championship were drawn up—Roberts played a second match with Bennett, and had no difficulty in regaining his title, as he won by 363 points in the very fast time of three hours twenty-two minutes. Cook was the next challenger, and, although he only got home by 15 points—a really nominal victory—this was the beginning of his marked superiority to any other player, and for exactly four years all efforts to wrest the championship from him proved futile. On November 29, 1872, during an exhibition match at his rooms in Regent Street, he made the previously unheard-of break of 936, which included no fewer than 262 consecutive spot hazards. This break was, of course, made on an ordinary table. From 1871 to 1875 was undoubtedly the very zenith of Cook's career. During those four years he stood right out by himself, and could defeat all comers on any class of table. The strongest point of his game was unquestionably his wonderful delicacy of touch. Brilliant forcing hazards, and winning hazards made at railroad speed, so irresistibly fascinating to the gallery, possessed little attraction for him, and he was the first man who seemed fully to realise what

might be done by delicately nursing the balls and bringing them together, time after time, with perfect strength. Even when at his best, however, he was never too consistent a player ; there were occasions when he was completely 'off,' and, if he happened to be caught on one of these days, quite a second-rate performer could beat him easily. His personal popularity was simply unbounded, and it would have taken a remarkably strong nature to have resisted all the temptations to which he was exposed. No man ever lost a finer chance of an exceptionally brilliant and successful career. He must have made much money, but when the end came, it found him penniless. I have no wish, however, to dwell on his weaknesses, amiable as most of them were ; rather let me record to his credit that no professional billiard-player has ever possessed a higher character for unimpeachable honesty, and that, in his prosperous times, he was never known to turn a deaf ear to appeals for assistance.

It is quite time, however, to introduce the third and only other man that ever held the championship cup presented by the leading billiard-table makers in 1870. I refer, of course, to Joseph Bennett, who was three or four years older than Roberts, and was playing in public before either Cook or his great rival. He rapidly acquired a wonderful knowledge of the game, for he was barely eighteen when he was engaged at Leeds to play and teach. During his stay there he played his first important match. It was with W. Moss ; the game was 1,000 up for 100*l.* a-side, and Bennett won by upwards of 500 points. Possibly this success induced him to turn his thoughts Londonwards again , at any rate, he shortly afterwards returned there. His first metropolitan match was with Dufton , then he played a couple with Herst, winning one and losing the other ; but it was the great four-handed match in which he and Charles Hughes so decisively beat old Roberts and Dufton that first brought him into prominent notice.

Whether Bennett, as a player, was ever quite the equal of Cook or Roberts it is unnecessary to discuss here. He beat

each of them in turn for the championship—performances with which he had reason to be contented. In early life Bennett's health was indifferent, and his nervous and highly strung temperament was by no means in his favour. One of his peculiarities was that, when in training for a championship or other important match, he would never play with anyone, but invariably shut himself up in a room alone, and played one ball against the other, or simply practised one or two special strokes by the hour together. His contention was that a man required all his nervous energy for the match itself, and ought not to waste any of it in practice. There was, doubtless, something in his theory, for few men have ever shown to more advantage 'in the pit;' and it was sheer pluck and determination that enabled him to defeat Cook for the championship, as his opponent held a long lead when within a couple of hundred of home. A very severe accident in the summer of 1881 caused Bennett to resign the championship, and, though he completely recovered from its effects, he wisely gave up playing in public. He will be better remembered as a teacher than as a player, for he virtually devoted his whole life to instruction, and with remarkable success.

In December 1873 Messrs. Burroughes & Watts promoted the first of a series of handicaps, with which they afterwards became so much identified. The important effect that these handicaps had upon the game is scarcely calculable, and, thanks to the liberality of the promoters, several players who afterwards took prominent positions, but might otherwise never have been heard of, were first introduced to public notice. These handicaps gave such men exactly the chance they needed. The following sixteen players took part in this handicap:—W. Cook, J. Roberts, jun., Joseph Bennett, T. Taylor, F. Bennett, S. W. Stanley, Harry Evans, W. Dufton, J. Roberts, sen., T. Morris, A. Hughes, John Bennett, L. Kilkenny, Alfred Bennett, G. Collins, and Stammers. It was won from scratch by Cook, who beat Kilkenny (130 points start)—the heats were 500 up, all in—in the final, winding up

with a splendid break of 428 ; and this appears to be a favourable opportunity for giving brief sketches of some of the players who took part in it, six or seven of whom are no longer living.

‘Master’ Stanley, as he was always designated in print for the first year or two after he began to play in public, was certainly one of the most precocious youths that ever handled a cue, and could not have been more than sixteen when he began to take his own part in good company. The spot hazard was the strongest point of his game, and I shall never forget the style in which he used to dash round the top of the table, getting ready to play the next stroke long before the red ball had reached the pocket. When it failed to drop in, even if it was a couple of inches wide of the pocket, his invariable look of blank astonishment was intensely comic.

Tom Taylor came forward about 1872, just at the time that Stanley was becoming well known, and many were the hotly contested battles between them. Never were two lads more evenly matched. Stanley was a shade the better of the pair at the spot stroke, but Taylor was a little superior all round the table. Tom, like most billiard-players, had a pet stroke. When he had opened a game with a miss in baulk, and his opponent had followed with the answering miss under one of the side cushions, he would invariably play at the red ball for the cannon off two cushions, and bring it off three times out of four. This is a stroke that is never played nowadays, and yet, when unsuccessful, it rarely leaves anything on, which is more than can be said of the cannon off the white ball, the customary game at present. A gamer player than Tom Taylor was never seen. No matter what the state of the score might be, he never ceased struggling ; to be apparently hopelessly in rear only seemed to improve his play, and from time to time he would pull a game out of the fire in really marvellous fashion. With the exception of Roberts and Collins, Taylor is the only one of the sixteen players in the great handicap at the Guildhall Tavern in December 1873 who was playing regularly in 1896.

Fred, Alfred, and John were all younger brothers of Joseph Bennett. John, although he occasionally took part in handicaps, was a player of no class, and died in November 1886, but Fred and Alfred worthily upheld the family reputation as billiard-players some twenty years¹ ago, though they seldom now play in public.² It is difficult to say which was the better of the two when they were in their prime, for both played the spot well and were good all round; but perhaps Fred was the more brilliant, and might have taken a high position if he had been fonder of the game, and devoted himself more assiduously to it.

L. Kilkenny was another remarkably sound exponent of the game as it was played twenty years¹ ago. He, too, was good on the 'spot,' and when this stroke went out of fashion it practically killed his game, for Roberts and Richards, neither of whom ever liked the stroke, are the only two of the old school who are playing better now than they did in the 'seventies. Kilkenny was about the last man that would have been taken for a professional billiard-player; indeed, clad in correct clerical costume, he would have made a model country vicar. He was always exceptionally quiet, unassuming, and well-behaved, and ought to have done well; but for some reason or another he missed his chances and died in poverty.

George Collins always played quite a game of his own. I have seen him make numerous long runs of spot strokes, but they were invariably put together in the most unorthodox style. His own ball was rarely within eighteen inches of the red, and he would incessantly leave himself the most difficult hazards, which he brought off again and again in the most marvellous fashion. In a spot break of 300 he would have to play more awkward shots than Taylor or Stanley would leave for themselves in ten breaks of the same number, and very much the same thing was noticeable in his all-round play. He would constantly succeed in 'gallery' shots, but never seemed to trouble himself as to where the balls would be placed after the stroke; and

¹ That is about the year 1876

² Alfred Bennett died after these lines were in type.

his apparent lack of any knowledge of playing for position was a fatally weak point in his game. It was magnificent, but it was not billiards, and in his best day Collins always played the game of an exceptionally good amateur rather than that of a professional. Of late years he has had comparatively little practice, and has naturally fallen off in consequence.

As long as he remained in England, Harry Evans was always recognised as a sound third-rate all-round player, who was practically of no use on the 'spot,' and it was a great surprise to all who had known him over here when, soon after he had settled down in Australia, he gained great fame as a spot-stroke player, made some really remarkable breaks, and held the championship there for many years; indeed, it is only comparatively recently that he was deprived of it by Charles Memmott.

With the exception of Roberts, sen, Tom Morris was many years older than any other player who took part in the first great handicap. His game was indifferent, as was that of A. Hughes and Stammers.

Early in 1874 the first agitation against the spot stroke took place, though it was not until twelve or thirteen years later that the stroke was virtually abandoned. It occasioned a good deal of surprise when the final heat of the first spot-barred handicap lay between Taylor and Stanley, two players whose game was popularly supposed to depend almost entirely upon their proficiency in the spot stroke. Yet there was really nothing remarkable about this result, for there is a great deal of truth and good sense contained in a letter from Stanley, which was published in 'Land and Water' about a couple of months before the handicap was played. In it he wrote: 'I believe, as a rule, it will be found that the best player at the spot stroke is the best player, after a time, at the all-round game. To play the spot stroke well requires great patience, a great deal of practice, and a great amount of nerve. Now, anyone who can combine all these is sure to be a good all-round player.' Cook paid a visit to America in 1874, where he was ill advised

enough to tackle Rudolph at the cannon game, with the inevitable result ; still, it was impossible to regret that he had taken the trip, for he brought back with him the American system of handicaps, which at once became so popular in this country that scarcely a dozen really important handicaps on the old 'knock-out' principle have been played in the last twenty years. It seems hardly necessary to explain that, in an American handicap, each player has to meet every one of the others, and the winner of the largest number of games takes the first prize. The immense advantage of this system is that the element of luck is as nearly as possible eliminated, and that, presuming the play to be fair and straightforward all through, the best man on the handicap terms will win. Messrs. Burroughes & Watts took up the experiment warmly, and presented 100*l.* in prizes. I formed one of the committee appointed to frame the handicap and to arrange the order of play, and I well remember the difficulty we had over the latter task, which will be fully appreciated by anyone who has attempted a similar one. It must be remembered that, as this was the first affair of the kind which had taken place in England, we had no precedents to guide us, and though it may seem very simple to arrange a list of eight men, so that each shall play against a different opponent on every one of seven days, let anyone who has had no experience in the matter sit down with a pencil and paper and try it. The handicap was as follows : Cook, Roberts, and J. Bennett, scratch ; Taylor, 100 points start ; Stanley, 120 ; Timbrell, 140 ; Kilkenney and A. Bennett, 160. William Timbrell has not previously figured in these pages, and may be dismissed in a very few lines. He was a Liverpool player, who had already been credited with, and to the best of my belief actually did make, a break of 893, which included a sequence of 296 'spots.' On his own table in Liverpool he may occasionally have done great things, which, however, he failed to repeat in London. The moment he began to play in public every atom of nerve seemed to leave him, and on the numerous occasions on which I saw him play he never showed even

third-rate form. Roberts and A. Bennett tied for first prize with five games each, and in playing off the former secured a very easy victory.

On May 24, 1875, Cook lost the championship, which he had held for exactly four years, to Roberts, and the match was a very noteworthy one, as it marks the turning-point in the careers of the two men. Up to that period Cook had been generally considered rather the better of the pair, but from the date of this match Roberts asserted his superiority, which became more and more marked in each succeeding year. In 1876 D. Richards, an elder brother of S. W. Stanley, ran second to Cook in an American Tournament. Richards is the *doyen* of all the professional players before the public in 1896, and is a fine player. As in the case of Roberts, increasing age only appears to improve his game, and there is not the smallest doubt that when he had reached his 'jubilee' he was playing infinitely better than he had ever done in his life. Nursery cannons form the strong point of his game, and he certainly plays them beautifully and with remarkable delicacy of touch, though it must be admitted that no one makes more use of the push stroke than he does. About the most noteworthy events of 1877 were two matches on a championship table between Joseph Bennett and Tom Taylor, both of which the latter won, though only by twenty-seven and twenty-one points respectively. Bennett had gone very much off in his play just about that time, or Taylor would not have been matched with him on even terms, and in the following year the two were both handicapped to receive a start of 150 in 500 from Cook in an American Tournament that was played at the Gaiety Restaurant. One of the eight men engaged in it was Fred Shorter, who had a start of 200, and had done very little previously. Never did a young player so suddenly make a reputation, and some of his performances during the tournament were most extraordinary. In his heat with Joseph Bennett, the latter gave a miss in baulk, Shorter followed by placing his ball under one of the side cushions, and Bennett went out for a cannon,

which he missed by the merest hair's breadth. This left a nice game on for Shorter, who speedily worked his way to the top of the table, and went clean out with the spot stroke, thus winning a love game. There is a little story relating to this heat which must be fairly well known, but is good enough to bear repetition. Of course, the game only lasted about a quarter of an hour, and, as we were going out of the room an old gentleman, desiring, I suppose, to make what he considered a soothing remark to the beaten man, said: 'How do you do, Mr. Bennett? You did not seem quite in your usual form to-day.' This to a man who had only been allowed two strokes—with one of which he gave a miss in baulk, and with the other as nearly as possible brought off a most difficult cannon—was almost too much. I shall never forget the expression of Bennett's face, but language failed him to make a suitable reply. Shorter did not treat Cook quite as unkindly as this; still, the latter only scored twelve when he played his heat with the new man on the following day, and most of the other players in the tournament were served in somewhat similar fashion.

A consequence of his beating Taylor was a match which I arranged between them, Shorter to receive 200 in 1,000. An incident that occurred early in this game gives an excellent idea of Shorter's coolness and self-possession. One of his friends was seated next to me at the spot-end of the table, and thoughtlessly struck a match to light a cigar without watching for a favourable opportunity to do so. Shorter had just worked his way to the spot, and the sudden flash catching his eye caused him to miss the pocket by about six inches. He came round to us and said quietly, 'Please don't do that again; I can get on the "spot" whenever I like, and stay there as long as I like, still it isn't worth while to throw away a chance.' This was no idle boast, for when the game stood at 444 to 152 in his favour he put his opponent's ball into one of the top pockets with a brilliant stab shot from baulk, and, his own remaining in perfect position behind the red, he ran right out, winning the match by 848 points. His break of 556

was for many years the largest made in a match for money. On being asked to continue it, he ran it up to 636, including 207 consecutive spot hazards. Just at that time I firmly believe that Shorter had no equal on an ordinary table; indeed, I offered to match him to play Cook 1,000 up, level, if the latter would stake 500*l.* to 200*l.*, but the proposal was politely declined. Unfortunately, Shorter's prospects of ever attaining a position at the head of his profession were marred by the fact that he had no liking for the game. It was the most difficult thing in the world to get him to do any practice. When he afterwards took part in tournaments, his first two or three games were generally devoted to playing himself into form, so that his big breaks towards the end of the week came too late to give him any chance of success. His constitution was never a strong one, and, as he could not be persuaded to take any reasonable care of himself, symptoms of consumption showed themselves in 1884. A voyage to Australia was recommended as the best chance of saving his life, but the remedy came too late, and he died at Deniliquin in August 1885. On a match between Roberts and Timbrell at the Gaiety Restaurant, Timbrell receiving 300 in 1,000 and winning by 449 points, it is not necessary to dwell. It was played on an ordinary table, spot stroke in, but Roberts never made more than 35 off the balls, whilst Timbrell's best break was 73.

The year 1879 was remarkable for the first appearance in London of William Mitchell. The 'Sheffielder,' as he has always been called, though, as a matter of fact, he was born in Derbyshire, had long been known in the provinces as a player of exceptional ability; but few were prepared for the form he showed on the occasion of his London *début* in an American Tournament at the Royal Aquarium, Westminster, when he won six consecutive games and took the first prize. This he followed up by securing another tournament at the Baynard Castle, and then he was taken on a provincial tour by Joseph Bennett, in the course of which he made many very remarkable breaks. Four years later, in a match of 3,000 up with Cook

for a stake of 1,000*l.*, Mitchell at last cut Shorter's record in a money game with a brilliant 739 (55 and 189 'spots'). Prior to this, however, when practising at Brighton, he had made a break of 1,839, composed almost entirely of 612 consecutive spot strokes. This was generally discredited at the time, but subsequent events showed Mitchell to be well capable of such a performance. When at his best, Mitchell never played a long game without making two or three four-figure breaks, and it was probably his own fault that Peall eventually became his master at the 'all-in' game. He played the 'spot' at a tremendous pace, and has never had an equal in one particular stroke—that of going all round the table and regaining position. A somewhat delicate constitution has always been against him, but his gameness is quite on a par with that of Roberts and Taylor. There has never been a more brilliant hazard striker, and, strange as it appears, considering that for many years the spot stroke was the backbone of his game, he was always seen to great advantage on a three-inch pocket championship table. When at his best, his all-round game is always a singularly free and attractive one to watch, and few players could surpass him in a push-barred game.

It was in 1880, the year after Mitchell had taken London by storm, that his great spot-stroke rival, W. J. Peall, made his first appearance as a professional. Rumours had long been flying about as to the big breaks he was in the constant habit of making when playing as an amateur, and his appearance at the Royal Aquarium in an all-in American Tournament was watched with great interest. He and R. Wilson received the limit of 175 points start in 500 from Joseph Bennett and W. Mitchell, who were at scratch. Peall, however, disappointed expectation at first, though playing sometimes brilliantly in exhibition games. He did not show to advantage when a stake was at issue, but in time he acquired confidence. In May 1884 he won an exhibition game with Mitchell at the Aquarium in four breaks exclusive of his initial miss, scoring 1,000 points in forty-four minutes, which still remains the fastest time on

record. Later in the same month the same pair were giving an exhibition game at Cambridge, and Peall made a wonderful break of 1,989, which included 548 consecutive spot strokes, though as all of this break, with the exception of the first 411, was made after the game was over, it is questionable whether it should be counted as a record. Fortunately for Peall, he can well afford to dispense with this 1,989 ; for at the Royal Aquarium, on November 5 and 6, 1890, he completely eclipsed it with a phenomenal break of 3,304, all made inside the game, and comprising runs of 93, 3, 150, 123, 172, 120, and 400 spot strokes. I have no hesitation in giving these records of breaks made almost entirely on the 'spot,' for though the tables on which most of them were made may have been comparatively easy, there is no sort of doubt that the breaks were genuine in other respects. With spot-barred breaks, however, the case is very different, and I prefer to write very little about them. In matches where no money has really been at stake, although each party to them had solemnly deposited his 50*l.*, or 100*l.*, or 200*l.*, as the case might be, it was clearly to the interest of each man to have as many big breaks made as possible, for the reports of these were likely to improve the 'gate.' Most of these big spot-barred breaks are composed largely of nursery cannons, and some of these long runs of nursery cannons which are credited to different players were never really made at all. Either a cannon was scored which was not made, a very difficult thing for a marker to detect, considering the express speed at which some professional players rattle up these 'nurseries,' or the player, when his ball was in contact with one of the others, calmly proceeded with his run of close cannons, instead of having the red and his opponent's ball spotted and playing from baulk. This is something of a digression, but it seemed necessary to explain why I have written so little about 'records.' They are easily to be ascertained by anyone who is interested in them, and can be taken for what they are worth. From these great performances of Peall's it may be easily gathered that his nervous-

ness had entirely left him, and, after he had once acquired confidence, there never was a more consistent and trustworthy performer. Whatever any of us may fancy Mitchell *might* have done, there is no getting away from what the latter has actually accomplished, and, as a spot-stroke player, he has never had an equal. For a long time past he has been ready and willing to meet anyone at the 'all-in' game, and is entitled to call himself champion of English billiards. It might have been imagined that the virtual disappearance of the spot stroke would have completely disposed of his pretensions to a place in the front rank, but, so far from this being the case, he was for a considerable period second only to Roberts as a spot-barred player. Short stature has always precluded the possibility of his being a very stylish player, but the extreme deliberation which rather detracted from his play years ago has to a great extent disappeared. His name has always been associated with all that is honourable and straightforward, and no member of his profession is more universally and deservedly respected.

No match for the championship had taken place for nearly three years and a half when Joseph Bennett challenged either Roberts or Cook to play for it. The former waived his claim and left Cook to meet Bennett on November 8, 1880. This match was one of the most interesting and exciting I ever witnessed. Bennett, who was favoured with a good deal of luck in the early part of the game, did not fail to take the fullest advantage of his opportunities, and, at the interval, held a lead of 122 points, a very big advantage indeed on a small-pocket table. The interval, however—like luncheon time in an important cricket match—often used to produce a marked change in the aspect of affairs, and soon after resuming play Cook put in a fine break of 107, passed his opponent at 795, and entered the last hundred with a substantial lead. The contest then seemed all over, but Bennett, playing up with any amount of coolness and resolution, won by 51 points. This was about the first time that I noticed unmistakable signs of

Cook's nerve failing him ; he missed two or three easy strokes just when points were most wanted, and I doubt if he was ever quite the same player again.

Cook and Roberts sailed for India immediately after this match, and Taylor at once challenged Bennett for the championship. The match came off on January 12 and 13, 1881, at St. James's Hall, and though, soon after starting, Bennett made a break of 125, the highest that had then been recorded in a match for the championship, Taylor stuck to him in his usual dogged fashion, and was only beaten by 90 points. Shorter was the next aspirant, but failed to make good his final deposit, so Bennett received forfeit. An off-hand match, however, for 25*l.* a side took place between the two on the table on which they ought to have played for the championship. Bennett, who conceded a start of 100 in 1,000, was defeated by 193, and as he soon afterwards met with the unfortunate gig accident to which I have previously alluded, this was about his last appearance as a player, all his energies being subsequently devoted to teaching. I must not omit to mention that in September of this year, during an exhibition game with Alfred Bennett, Cook made a spot-baired break of 309, the longest then on record. It was without the semblance of a fluke, and was a far finer performance than it looks to be on paper, for the 'top of the table game' was then unknown, and it was put together by open play all round the table.

In January 1882, Cook, for the first time, took points from Roberts, who gave him 500 in 5,000, all in, for 500*l.* a-side, and won by no fewer than 1,658 points ; the winner's best break was 430 (5, 11, and 107 'spots'). A return match was played for a similar stake at Newmarket during the July week, and was witnessed by the Prince of Wales and a large and aristocratic company. This time Cook's start was increased to 750, and he won by 918. His highest break was one of 412 ; Roberts had two consecutive runs of 653 and 395.

Very early in 1883 John North, who possessed a high reputation in Wales and the western counties, made his first appearance

in London. This was in a spot-barred American Tournament at the Albert Club, and a more trying ordeal for a comparative novice cannot well be imagined, for, as is very truly stated in 'Billiards, by W. Cook,' in allusion to North's *début* :

It is comparatively easy to perform in an ordinary tournament or match, where the least noise or interruption to the player is instantly checked, . . . but billiards at the Albert Club is a different thing altogether. Betting on the game, and often on individual strokes, is carried on without let or hindrance, and that a stranger to London should have displayed consistently good form under such trying circumstances was conclusive evidence that he had plenty of nerve and self-possession.

North won this tournament, but it cannot be said that he has ever fulfilled his early promise. Fit and well, and at his best, he is an undoubtedly fine player ; but his style, never a pretty one, becomes terribly ugly and jerky when he is out of form. Towards the close of the year 1883 Roberts offered to give any man in the world 500 in 5,000, all-in, or 200 in 3,000 spot barred. There was no response, and I only mention the fact to show how the status of certain players has altered in the last ten years. Few people would now care to pit Roberts against Peall on even terms at the all-in game ; whereas his supremacy at the spot-barred game, to which he has entirely devoted himself, is so complete, that his offer of such a start as 200 in 3000 reads almost ludicrously.

At the end of the year J. G. Sala, a Scotch player of considerable repute, appeared in London for the first time in an American Tournament. On his day he was a fine spot-stroke player ; indeed, his feat of making 186 consecutive screw-back red hazards into the same pocket remained a record for years, when it was completely wiped out by Charles Memmott, who made 413 similar strokes in succession in a match in Australia. Sala was, however, by no means strong at the all-round game. In 1884 Roberts took a company consisting of Mitchell, Taylor, Shorter, North, Collins, White, Coles, and Sala for a provincial tour, and organised tournaments in Birmingham,



CHOOSING A CUE

the middle of a long match, with one of the players possibly hopelessly in the rear, as it is to see a game begun and finished at a single sitting. The last matches ever played for the championship took place in 1885, when Roberts defeated Cook and Joseph Bennett in turn, each game being 3,000 up. The champion at this time was suffering from an attack of rheumatic gout, which prevented him from touching a cue for a week prior to the match with Cook, and made it very difficult for him to hobble round the table ; but he won by 92 points. Bennett suffered defeat by more than half the game. It is only fair to state that Bennett was so unwell that he could scarcely hit a ball on the first and second days, but the one-sided nature of the contest was in a great measure atoned for by the splendid exhibition given by Roberts. He made breaks of 155 and 147, the largest ever put together in a match for the championship ; and also scored sixteen successive spot strokes, the largest consecutive number ever made in a championship match. A notable 'all-in' match of 15,000 up on even terms between Roberts and Mitchell was played in February 1886 ; Roberts, who certainly had the better of the luck, winning by 1,741 points. His longest breaks were 693 (230 spot strokes), 544 (179), 616 (88 and 104), 722 (230), and 716 (47 and 184). Mitchell's highest efforts were 745 (244), 601 (197), 969 (321), and 532 (175). The result was particularly instructive, as it showed that, though Mitchell was at his very best just then, and in full practice at the spot, whereas Roberts had not played the stroke in public for months previously, the champion was still able to assert his supremacy at the all-in game. In the following week Roberts and Peall began a six days' spot-stroke match. The conditions were that they should play four hours per day, each man to place his ball where he chose at the beginning of a break, and the highest aggregate scorer at the end of the week to be the winner. Peall had matters all his own way from the outset, and eventually totalled 16,734 against Roberts's 11,925 ; it was a terribly wearisome affair and attracted very few spectators. Later in the year Peall challenged

Roberts to play 15,000 up, all in, on even terms, and as Roberts declined the offer then, and whenever it has been renewed, Peall, as already remarked, has certainly been entitled to claim the championship at English billiards ever since that date

Since 1886 genuine matches for money have gone greatly out of fashion, and we have had to content ourselves with battles for more or less fictitious 'purses,' varied by an occasional tournament. The great feature of the past few years has been the wonderful play of Roberts, who, although he was born on August 15, 1847, has made greater improvement during the past few seasons than any of the younger players, and was never better than he is at present. Everyone who is interested in the game should see him play, which will give a better idea of his inimitable skill than pages of description.

The young players who have come most prominently to the front since about 1888 are Hugh M'Neill, Charles Dawson, Edward Diggle, H. W. Stevenson, and William Spiller. At one time M'Neill, who is a left-handed player, was generally regarded as the 'coming champion.' He was the first to grasp something of the champion's style, and certainly played the 'top of the table game' better than any of his contemporaries. Roberts had a very high opinion of him, and long ago said that he 'would be a splendid player if he would only keep steady.' A very severe illness unfortunately obliged the young Scotchman to give up playing for a long period. Dawson's improvement was rapid, and well maintained for several seasons. His form is generally very consistent, and would be even more so if he were less sensitive when luck seems to be against him. Diggle is now generally regarded as one of the most promising of the younger men. He is by no means a pretty player, and does not appear to have the least idea of making a bridge, sometimes playing through his forefinger, sometimes between his first and second finger, and in various other extraordinary fashions; but, bridge or no bridge, he keeps on scoring.

Stevenson is by far the youngest of the professional players, being still under age at the time of writing, and there are great possibilities before him, for he has a beautiful delicate touch, strongly resembling William Cook in that respect. It has been amply proved during the season of 1895-6 that Spiller only needed the requisite public practice to make him a fine player, and, though he performs in somewhat loose and haphazard style, he continually runs up long breaks. Nor must I forget Charles Memmott, a remarkably game and capable performer, and equally good at the all-in or spot-barred game. J. P. Mannock is a player who would have come into prominent notice long ago had he appeared more in public.

The game is just now in a somewhat curious state. It was never so popular in clubs, and where there was one house possessing a private table a dozen years ago, there are now twenty ; but the public support of billiards is fitful. There is no doubt that exhibition matches have been terribly overdone during the last few seasons, and some genuine battles are sadly needed to revive the fading interest in the doings of professional players. It may, I think, be taken for granted that the push stroke—which has been abused to such an extent that a big cannon break is only put together by means of a number of glaring fouls—is doomed. Probably, indeed, the table of the near future will have smaller pockets with the spot a little nearer to the top of the table than it is at present. There will then be no occasion to bar any fair stroke, for such gigantic breaks from the spot-stroke as have been made by Peall and Mitchell would be a sheer impossibility. The barring of any fair stroke makes the game a bastard one, and I feel certain that an alteration in the tables, such as I have indicated, would make billiards far more interesting to watch than it is at present, and would, therefore, prove of the greatest benefit to professional players.

SYDENHAM DIXON.

The history of the development of the modern game of billiards is scarcely complete without reference to the games between Roberts and Frank Ives, the American champion, because the capabilities of the cannon game, even on a table with pockets, were so conclusively shown. Since then, cannons have played a conspicuous part in most long spot-barred breaks, and although cushion nurseries, specially when very close, are so open to objection that some restriction is probable, yet it is certain that as pockets are made more difficult, cannons will become more important. Indeed, this would seem to lead ultimately to the adoption of the cannon game and the abandonment of pockets; a consummation to be regretted, for winning and losing hazards are attractive features in the English game.

In the summer of 1893 the champions met at Knightsbridge and played on a table with $3\frac{1}{2}$ in. pockets and with balls $2\frac{1}{4}$ in. in diameter. At first Roberts had the advantage, but afterwards Ives cornered the balls, making 1,267 cannons in a break of 2,539, and 402 cannons in a break of 852, and won with ease. At the end the game stood, Ives, 6,000, Roberts, 3,821.

Neither player could be expected to show his best form under the circumstances, for compromise in the matter of tables and balls cannot be satisfactory; but the power and control possessed by Ives were a revelation to most of our experts. Putting the great break on one side, he was easily able to run up very long scores by means of a series of cannons played almost perfectly, without the push stroke or suspicion of a foul, and with but slight recourse to the *massé*.

During December 1895 Eugene Carter, another American player, has been giving exhibitions at the Argyll Hall, and those who are capable of judging cannot fail to have realised from his performances how important the cannon is likely to be in the English game of the immediate future.

To the various professionals who have been mentioned the names should be added of Green, the veteran Scotch player, who has often performed very well in London, and

whose game is sound, if old-fashioned, and of Lloyd, who won the first prize at the Association Tournament held in December, 1895, after a most determined struggle with Peall. The games during this tournament were played spot and push strokes barred.

More detailed notice of John Roberts and his remarkable breaks¹ would have been made here were he not so frequently alluded to in other parts of the book, for the history of the modern game is mainly the history of his career and that of his father. The elder revolutionised the game by the cultivation of the spot stroke, whilst the younger has advanced its interests by virtually abandoning that mode of play. Each of them for long was without a rival on even terms, and the respect entertained for the play of the younger Roberts is, we trust, evident by the references elsewhere to his opinions and practice.

SINCE the beginning of 1896, when the foregoing pages were written, various events have happened which it is desirable to record in order to continue the history of the game to the commencement of the year 1906. The juniors of ten years ago have attained a higher position, younger people having taken their place, and the seniors, Roberts excepted, have more or less withdrawn from public play. Death too has been busy in the professional ranks. Sala, a good fighter and champion of Scotland; McNeill, a promising player and Sala's successor; North, a dangerous opponent, better than his style indicated, Bennett, ex-champion, and a well-known teacher; Ives, a genius at his game, and at the top of his profession in America, Spiller, a charming player to watch, a master of close cannons, Carter, a prominent American player and great showman; are all gone. D. Richards, Peall, Tom Taylor, and other well-known names are now seldom seen in announcements of matches: but on the other

¹ Roberts twice in 1894, during exhibition games, exceeded 1,000 in spot-barred breaks, making 1,017 and 1,392.

hand some new names are to be found, notably, Harverson, Weiss, Aiken, champion of Scotland, and Inman ; their doings will hereafter be mentioned.

During the first years of the decade under review the chief attraction in the billiard world was undoubtedly to be found in the Egyptian Hall, Piccadilly, where Roberts was in the habit of playing other celebrities and manœuvring the close finishes which delighted the public and produced a good gate. As shows the games were most attractive, and people cared little whether the stakes were real or fictitious. But he carried giving points to other players too far, specially perhaps in the great game with Peall from February 15 to 27, 1897, when he gave 12,000 out of 24,000. The 'Daily Telegraph' held the stakes and appointed the referee, and the game was an immense success, peers, Cabinet Ministers, M.P.'s, and ladies were present in numbers, every available seat being taken throughout. Peall won by 310 points, and the representative of the 'Daily Telegraph' handed him a cheque for 1,000*l* on account of the stakes, but the gate was more than double that sum, and Roberts did not lose by the match.

But the younger players were improving, thanks in a great measure to the practice they had with Roberts, and it was not to be expected that all of them would continue to accept considerably more points than the difference in play warranted. Moreover there was going on at this time a controversy between Roberts and the Billiard Association, a body inclined to claim for itself more importance than the great player was disposed to concede, which was often distinctly amusing. Hard words were not spared, and the ability of the champion to give the customary large starts was questioned. This led to a challenge by Dawson to play Roberts 18,000 even for 200*l* and the whole of the receipts. After prolonged correspondence Roberts accepted, half the game to be played in Argyll Street and half in the Egyptian Hall. The game lasted from March 20 to April 3, 1899, and both men played

below their usual form ; during the first week Dawson scored 8,721 to Roberts' 9,001, and at the end of the second week Roberts won by 1,814 points, thus maintaining his position as the best player, but clearly showing that the starts usually given at the exhibition games were excessive.

After this game Dawson was generally accepted as next best to Roberts, and rightly so, for in turn he defeated his adversaries and won the championship promoted by the Billiard Association. In January 1900 he played what is believed to have been a genuine money match with William Mitchell, giving that redoubtable antagonist 1,000 in 18,000, and winning with a very fine unfinished break of 421 by no less than 1,931 points.

In April Stevenson, having defeated Diggle by 2,900 in a game of 9,000, played Dawson for his championship, but lost by 2,225 points.

Meanwhile Roberts went on a tour to Australia, where he met Weiss, a slow, steady, but undoubtedly fine player, who, having defeated Memmott, had become champion of Australia ; Roberts gave 4,000 in 14,000 and won by 451, Weiss' best break being 215. They played again before long, Weiss receiving 7,000 in 21,000 and winning by 891, of his play the 'Sydney Referee' remarked — 'He plugged away solidly and safely until the winning stroke was made, and then walked away as unconcernedly as if he was accustomed to beating the billiard champion of the world every day in the week.' Those familiar with the winner's play will recognise the fidelity of this description.

In London, towards the end of 1900, Inman's play attracted attention. His style was ungainly and unfinished, but he was a careful player, never giving away a chance and cramping his opponent when nothing better could be done ; he had plenty of confidence and has won many hard-fought games. Kerkau, too, a German player of remarkable skill, credited with a break of 3,843 cannons on a 10-ft. table, visited us about this time. He is to Germany what Ives was

to America, and, if we are not mistaken, he has since then exceeded that great break

Early in January 1901 Stevenson defeated Dawson for the championship in spite of a fine break by the latter of 534 ; but in April Dawson had his revenge, making the usual 9,000 to Stevenson's 5,796, thus winning by 3,204 points. The always interesting contests between Dawson and Diggle were continued. In the early days the men were wonderfully equal, and then for a time Diggle seemed to be unquestionably the next best player to Roberts, with whom he had much practice, both in London and elsewhere ; but latterly Dawson forged ahead and found himself able to give his rival a substantial start. Thus he gave 3,000 in 21,000 in January and won by 581, but this implies no deterioration in Diggle's play, for about the same time, playing with Reece, he made a break of 510, and in March another of 457. The fact is that his game suffered more than that of many other players by the abandonment of the push stroke, and will take longer to recover the effects of that change.

The season 1900-1 was rather a poor one as regards billiards, of the best players probably Stevenson was making most progress. As he got older he gained confidence and began to believe that he was at least Dawson's equal, and that in a contest luck would turn the scale

Next season (1901-2) this was tested. Three matches of 18,000 each, level, were arranged, Stevenson won the first at the Argyll Hall, with Reece as referee, by 3,806 points. This considerable margin was mainly the result of remarkable play during a few days when Stevenson practically monopolised the table and established a lead of 3,374 points. The second match was played at Manchester, and at first it looked as if a similar result was to follow, for half-way Stevenson led by nearly 1,000 ; but Dawson's courage and ability turned the scale and he won a well-deserved victory by 910 points. The third match was played in the Argyll Hall, and after a well-contested game Dawson won by 1,169 points, thus securing

the rubber. The result, however, did not affect Stevenson as holding the championship promoted by the Association, a position he had acquired because Dawson declined to play on the date fixed by that body. But it had the comical result of the champion being defeated on even terms and still retaining the title—rather anomalous surely

These were the most important matches of the season, but there were others genuine and interesting, among which one between Harverson and Inman, won by the former after a very close contest with the excellent break of 225 unfinished, was an admirable performance. T Aiken also distinguished himself in a match with T. Rae of 18,000 for the championship of Scotland, he won this in hollow fashion by 8,135 points, making eighteen breaks over 100, his best being 245. He also easily defeated Stevenson, who gave him 6,000 out of 18,000 by over 2,000, and took good places in handicaps in London and Manchester.

Of the season 1902-3 little need be recorded. Harverson again defeated Inman by 1,447 points in an even game of 16,000, Dawson beat Stevenson for the championship after a great fight: he started badly but caught Stevenson, who, despite a break of 417—a most commendable effort on the last day—lost the game by 300 points. Dawson, Stevenson and Diggle were the best players in the absence of Roberts, and probably in the order named, whilst Harverson, Inman and Aiken had materially improved.

The season 1903-4 was opened, so far as notable games are concerned, by Dawson and Diggle; the latter received 1,000 in 18,000 and lost by 626. A game, interesting chiefly because crystalate balls were used, was played by Harverson and Bateman. Both made good breaks, which are, perhaps, the best testimony the balls can have, Harverson made fourteen over 100 each, Bateman also making 210, 201, &c. A tournament which included pyramids was played, the performers being Dawson, Diggle, Mitchell, Harverson, Peall, Reece, Inman, Cook, Osborne, and Mack. Osborne, who

received 150, tied with Harverson, who received 100 in 500, for the billiards ; in playing off, the former won Dawson won the pyramids ; Reece, Harverson, and Osborne coming next Inman maintained his character as a hard fighter ; he defeated Harverson, who gave 1,000 in 16,000, by 735 points, and not long after beat Reece by 1,595 in a game of the same length on even terms. Towards the end of the season Dawson and Stevenson played another set of test-matches at Manchester, Newcastle-on-Tyne, and Glasgow. Stevenson won the first by 1,884 points ; the second game, remarkable for large breaks, notably one of 788 points by Stevenson, was won by Dawson with a margin of 870 , the third, a close game, during which Stevenson led till near the end, was secured by Dawson, who, making a break of 398 on the last afternoon, won by 743 points.

Roberts returned from his tour and resumed play early in 1904-5. He had not, it is believed, shown remarkable form whilst away, and certain writers in the sporting press, considering the improvement of the younger men and the deterioration of play due to increasing age, eagerly discounted his performances. These at first were disappointing to his admirers, for he completely failed to give Aiken 3,000 in 9,000, losing the game by 2,250 points , he also lost a game to Reece, but played better than with Aiken , and soon after, giving Harverson 2,250 in 9,000 at Manchester, he won by 567. No doubt the change from Indian and Colonial tables and surroundings, and the long want of play with professional antagonists, told against him at first, for he has since shown improved form, at times recalling his best play of former years , witness his break of 821, and an unfinished 433 made in Glasgow when playing with Duncan in January 1905.

This state of affairs, and the certainty of large receipts, led to an arrangement whereby Dawson and Stevenson should compete, the winner to meet Roberts and receive 2,000 points in 18,000. Meanwhile Roberts got the practice he required ; he lost, however, two games of 18,000 to Inman, to whom he

gave 5,500 start, and one of the same length to Aiken, in which he gave 5,000 points.

During the season a tournament on the American system, managed by Messrs. Burroughes and Watts, was in progress; the firm gave liberal prizes and the games were keenly contested. These tournaments are specially interesting not merely because spectators may see a variety of games played by carefully-selected men, but also because the handicap affords a reasonable guide to the relative merits of the players as they were estimated at the time. Thus the entries were Dawson and Stevenson, scratch; Harverson received 2,250; Bateman 2,500; Inman, Reece, and Cook 2,750 each in games of 9,000. Stevenson won his game with Dawson by 1,169 points, and Harverson, beating Inman, gained the first prize. Two more games were played by Stevenson and Dawson, each winning one by a somewhat similar proportion of points. Thus the rivals were still fairly close in merit, though of the two Stevenson had shown greater signs of improvement; he won the game which entitled him to meet Roberts by 1,690 points with an average of 38 56 against Dawson's 35 09. The game with Roberts was unquestionably important because of the large receipts sure to be forthcoming. It was played at the Caxton Hall, Westminster, the management being in the capable hands of Mr. Courtney, and was commenced on May 22, 1905. Stevenson received 2,000 in 18,000, and began well, carrying all before him for three days; but on the fourth there came a marvellous change. During the afternoon Roberts scored 1,291 to his opponent's 434, and in the evening 876 to 516, and by the end of the week the scores were: Stevenson (received 2,000), 9,767; Roberts, 9,000. During the second week Roberts gained the lead, but he soon lost it and eventually the match by 1,520 points. His average throughout the game was 29·66, Stevenson's being 28·67. The match, save from a financial aspect, was far from satisfactory; it was played too late in the season and the heat was excessive. The conduct of some of the spectators was un-

doubtedly reprehensible, for in the earlier part of the game they permitted a justifiable sympathy with the old favourite to outrun the bounds of propriety and of fair play due to his antagonist. This led to something like organised applause for Stevenson in the latter stages. Everything of that kind should be discouraged, and no match of importance should ever be played in hot weather or in over-heated rooms; the players cannot do themselves justice, some men of course suffering more than others, and for spectators a crowded and over-heated hall is not an ideal place for spending a summer afternoon or night.

The season 1905-6 is in full swing whilst these notes are being written. If the previous one ended late, this one began early, most of the professionals having got to work in September.

A tournament was commenced in October at Messrs. Burroughes & Watts' room, Soho Square, in which the players are : Roberts, scratch, Diggle receives 1,250; Mitchell, 1,750; Harverson, 2,000; Weiss, 2,000; Reece, 2,500, Inman, 2,500; and T. Aiken, 2,500. So far the games have been interesting to watch and Inman has again shown his skill and caution; he is a greatly improved player. Diggle too has played magnificently though not consistently; his break of 427 in the game with Roberts was a marvel of accuracy. A great contrast to a most meritorious 326 previously made by Roberts, for the younger player performed with mechanical precision, the same strokes recurring over and over again, made the same way with the same strength and the same result. Whereas Roberts *more suo* was soon more or less in difficulties, from which as of old he extracted himself by marvellous strokes to the unbounded delight of the spectators, who deservedly applauded both men.

Aiken also has played well; in fact so far all have done so, though it has been found necessary to substitute Cook, a son of William Cook, ex-champion, for Mitchell. Cook is a graceful player who has made a speciality of nursery cannons.

Another feature, besides tournaments, in this season is the number of youthful prodigies who are advertised; some are not so very young, and no doubt in the future more will be heard of the survivors.

To attempt to place the players who are before the public at the beginning of 1906 in order of merit, would be a task as difficult as it would be unpleasing and unprofitable, but in a general way it may be said that Roberts still commands greater receipts at a match or exhibition than any other player. He is an excellent showman and a great favourite of the public. His game too stands by itself, and appeals far more strongly to the average amateur than the more deadly and more mechanical scoring of Dawson, Diggle, or Stevenson. These three stand at the head of their profession, if we place Roberts on the retired list, which is reasonable as far as warfare is concerned, though for exhibition purposes we hope to see him for many a day and often. They are closely followed by Weiss, Harverson, Inman, Aiken, Reece, Bateman, Cook, and others. It is unnecessary to say more. Every season brings changes, some players deteriorate or die; others improve; and again, recruits enter the ranks yearly. Manufacture of tables and implements has to keep pace with play, for players owe much to good materials.

The question of a suitable hall for important matches has not yet been settled; it should be large and capable of being comfortably fitted for its patrons. For tournaments and exhibition games the rooms at Burroughes & Watts, Soho Square, at Thurston's, Leicester Square, and presumably (for we have not yet seen it) at Cox & Yeaman's, Brompton Road, are probably sufficient.

December 1905.

CHAPTER II

IMPLEMENTS

BY ARCHIBALD H. BOYD

No game in the world is so absolutely dependent on all its various accessories as billiards. Cricket can still be played, and played well, although the pitch may be not quite first-rate, and a bit of rough ground is not fatal to a golf links ; but if the room be not large and airy, if the table be ill kept, the cloth unbrushed or badly stretched, the balls foul, and the cues ill cared for, the skilful player at billiards will be reduced to the level of an ordinary performer, and anything like a decent break will be out of the question. It is, therefore, of paramount importance that all the implements connected with the game should be of the very best kind, and in the very best order.

Before dealing seriatim with the various subjects, it is with pleasure that I acknowledge the great assistance that Messrs. Burroughes & Watts and Messrs. Thurston & Co. (I place the firms in alphabetical order) have cheerfully given me—assistance without which I could not have hoped to carry out my allotted task, and with which, I fear, I have hardly done justice to the time and trouble they have ungrudgingly expended upon me. I have also to thank Messrs. Wright & Co. for the drawings of the Standard Association Pockets which appear amongst the remarks on tables.

THE ROOM

To begin with, a room of convenient proportions must be found to accommodate the table. Good play is severely

handicapped by an unsuitable room, and the essential points of a good room are worthy of careful consideration. That it must be large and airy goes almost without saying, yet, self-evident as this may seem, it is a point which is too frequently overlooked, not only in private billiard-rooms, but also in rooms where exhibition matches are constantly being played.

Amateurs, in general, are more directly interested in the rooms of clubs and private houses, concerning which there are some points which cannot well be disregarded.

And, first, as to club-rooms.

Although in these the architect has, as a rule, a free hand, yet in far too many cases the comfort of the spectator (and, as a natural corollary, the freedom of the players) is sadly neglected. It is most important for the players' sake that spectators should be comfortably seated at a reasonable distance from the table. No man can play his best if he has constantly to turn round and look for a place for his foot amongst a crowd of friends; still less when he is haunted by the fear that the butt of his cue may at any moment come into collision with a whisky-and-soda. The older architects, as a body, seemed to consider that if the room was twenty-four feet long by eighteen feet broad, ample accommodation was provided, forgetting that the platforms, upon which the seats are placed, take up a great deal of the spare space. So that one frequently finds, in an apparently large room, that certain strokes cannot be played without placing a foot upon the platform. At one club an ingenious architect, ably abetted by an unwary committee, ran some hot-water pipes *in front* of the platform, and so near to the top of the table did they extend, that the well-known hazard from the top pocket off the spot became exceedingly difficult, because a player was obliged to rest one foot upon these rounded pipes, which afforded, at the best, a precarious foothold. It is of the utmost importance that the player should have plenty of room *all round* the table.

Another matter of importance is the position of the door. Do what you will, somebody is sure to come in 'on the stroke,'

and, therefore, the more the door can be kept out of the line of sight the better. Obviously, the worst place for the door is at the top of the table—*i.e.* directly facing the player as he plays from baulk—the best place is at the bottom, and, if possible, away to the side.

In a large and modern room a light screen with peep-holes may be advantageously placed inside the door, which should be fitted so as to open and shut silently. By this means an inevitable nuisance may be brought within manageable limits.

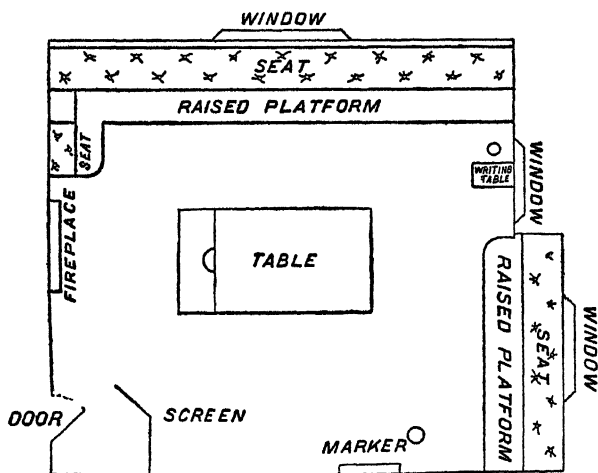


Fig. 1

The position of the fireplace is also important. A flickering light in the eyes of the players interferes seriously with good play; therefore, if possible, the fire should never be at the top of the table. Wherever it may be, it is well to cover the outside of the pocket facing it with green cloth, so that the light may not shine through the pocket.

The Committee of the Oriental Club have kindly permitted me to introduce a plan of their large room as an excellent example of what a club-room should be (fig. 1). As will be seen

in the plan, the door is well out of the way, the seats are roomy and comfortable, capable of seating, say, fifty spectators, and—most important of all—plenty of space is left for the player all round the table. The skylight (fig 2) is a special feature ; in most rooms its elevation is something like the annexed sketches (fig 3).

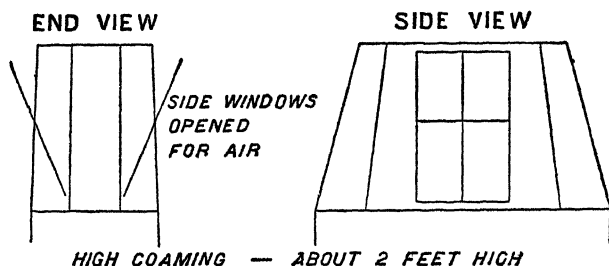


Fig. 2



Fig. 3

A private house billiard-room need not be so large as a club room, but it is essential that it should be as airy as possible, and—a most important point—it ought, if possible, to be the usual smoking-room of the house, so that it may be regularly inhabited. If this point is neglected, and the room is intended solely for billiards, a time may come when it may be left severely alone for two or three months, and the cushions will probably suffer from cold and want of play. If, however, the room be made comfortable and attractive, it will be constantly lived in, and the cushions kept at an equable temperature. Besides, the fact of the table being at hand and ready will of itself induce more play.

All this, of course, means that at one end or other of the table there must be considerably more than the regulation six feet. If one is going to build, thirty or thirty-two feet for length, and twenty feet for breadth, will give plenty of space for billiards and smoking, and be more satisfactory in the long run than a room twenty-four by eighteen at the outside.

If the plan of the house precludes the possibility of a room of this size, it should be remembered that very excellent billiard-rooms of corrugated iron, lined with felt and match-

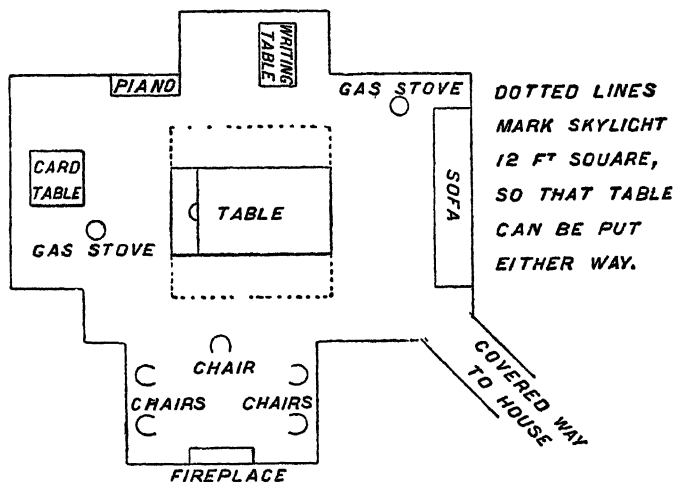


Fig. 4

boarding, can be put up alongside a house if the requisite space can be found for them. It is also worth while to remember that thirty feet by twenty feet looks a very small plot when measured on the lawn, so that many a disused and forgotten corner might serve as a site for a noble billiard-room.

Such a room Mr. W. H. Fowler, the well-known amateur, has erected in Taunton by the side of his house. It is thirty-four feet by thirty-three feet, and is roughly of this shape (fig. 4).

The system of ventilation seems so excellent that, at my

request, Mr Samson, the architect of the room, has kindly sent me drawings which are shown under 'Ventilation,' and which will, no doubt, make clear what is obscure in this description.

The skylight is fitted with an exhaust cowl, and the chimney has a special ventilating flue. For cold weather, two gas-stoves of the modern hygienic type are connected with the gas-pipes, and keep the room warm enough at night to save the cushions from the effects of the severest frost. As they have come

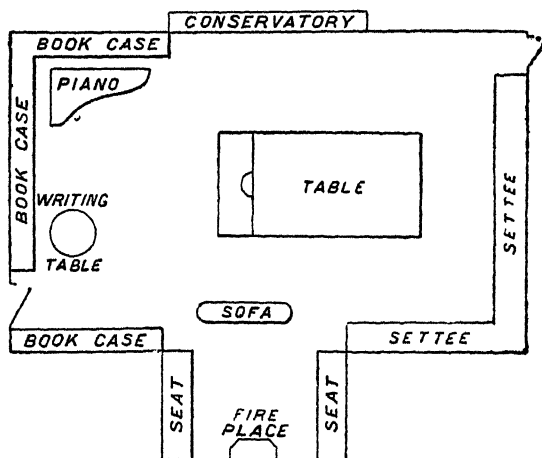


Fig 5

triumphantly out of the ordeal of the Siberian winter of 1894-95, it is fair to assume that outside rooms of this type can be thoroughly protected from cold with very little trouble.

The recesses on each side give ample room for smoking, whist, or writing, and the horizontal beams of the framework naturally lend themselves to the function of bookshelves, so that a variety of tastes may be satisfied. The cost of such a room would be about 300*l*.

As a type of an indoor room I append a rough sketch of

Mr. A. Gibbs' room at Tyntesfield, which embodies the same principle—viz. that it is an exceedingly comfortable room for smoking and writing. It is covered with a high-arched roof, so that it is always cool (fig. 5).

One can thus see that the addition of a recess or a few feet in length at once renders the room habitable and convenient.

I do not, of course, wish it to be supposed that the foregoing plans necessarily represent the best billiard-rooms of their kind in the country ; they happen to be rooms with which I am familiar, and I have introduced them as illustrations merely of the principle that *comfort*, both for players and spectators, is a very important factor in the encouragement of good play. Every reader can, out of his personal experience, suggest to himself examples of comfortable rooms, both public and private, as good as, and possibly better, than those I have sketched.

VENTILATION

One of the most difficult and most important problems in connexion with billiard-rooms is the subject of ventilation, particularly where the electric light is used. If gas be the lighting agent, the heated air can generally be drawn off by means of an exhaust cowl over the skylight ; but these cowls are apt to cause a leak in the skylight fittings, and must, therefore, be erected with great care. Where the electric light is used, a small sunlight gas-burner at the bottom of the exhaust tube helps to generate a hot upward current.

Tobin tubes in the corners of the room, carried well up eight or nine feet from the ground, are valuable allies in admitting fresh air ; but one great objection to them is that they usually pour the cold current upon the unprotected heads and necks of the spectators. Small boards (say six inches in height) to fit against the bottom of the windows make capital practical 'Tobins ;' for the lower sashes can be pushed up a couple of inches without going clear of the board, and fresh air comes

into the room between the sashes. Skylight sashes are not of much use, for they can only be used in fine weather, and they rarely fit tight enough to keep out really heavy rain. If we turn back for a moment to the drawing of the Oriental Club skylight, we shall see that it is a good fine-weather type. The sashes pivot on their middles and admit plenty of air, and as the coaming¹ is unusually high (more than two feet), the danger of rain splashing off the flat roof through the bottom of the sashes is sensibly reduced.

Mr. Samson, the architect of the County Club at Taunton, and also of Mr. Fowler's room, very recently showed me a system of ventilation which he had introduced into the Club billiard-room with absolute success. Fully realising the difficulty of keeping rain out and letting air in with a skylight

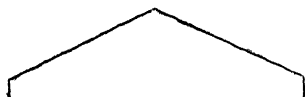


Fig. 6

of the ordinary type, he decided to carry the skylight the whole length of the room, so that the sashes which open at one end are far removed from the table. The skylight is of the ordinary section (fig. 6), and in order to avoid undue glare he has fitted the space between the coamings with horizontal sashes of ground glass, sliding one on another in such a way that the amount of light can be easily regulated by the marker. At one end of the skylight two vertical sashes (of the full width of the skylight) are fitted, one being above the coaming, the other in the wall below the coaming, so that it can be opened whether all the horizontal sashes be closed or not. At the other, or fireplace end of the skylight, two large gratings are fixed, one (as at the opposite end) above, the other below the level of the base of the skylight, communicating with a flue in the chimney, which is, of course, kept warm by the heat of the fire. Thus a powerful exhaust is working at one end of the room, while as much or as little fresh air as is required flows

¹ The raised woodwork above the leads.

in at the other. I append a rough sketch, which may, perhaps, tend to make the description clearer (fig. 7).

The two great advantages of his plan seem to me to be, first, the risk of water on the table is greatly diminished ; second, no matter how cold it be, some air can be admitted, and some

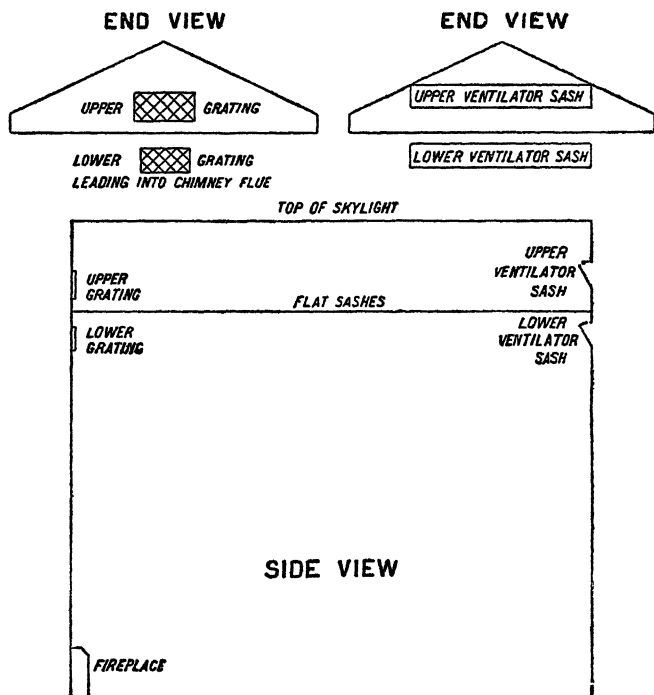


Fig. 7

can be sucked out, although the skylight may be completely shut by the closing of all the flat sashes.

In all rooms, the heating apparatus, whatever it may be, should be absolutely under the control of the players. Most of us have experienced the nuisance of hearing a fire noisily

TRANSVERSE SECTIONS

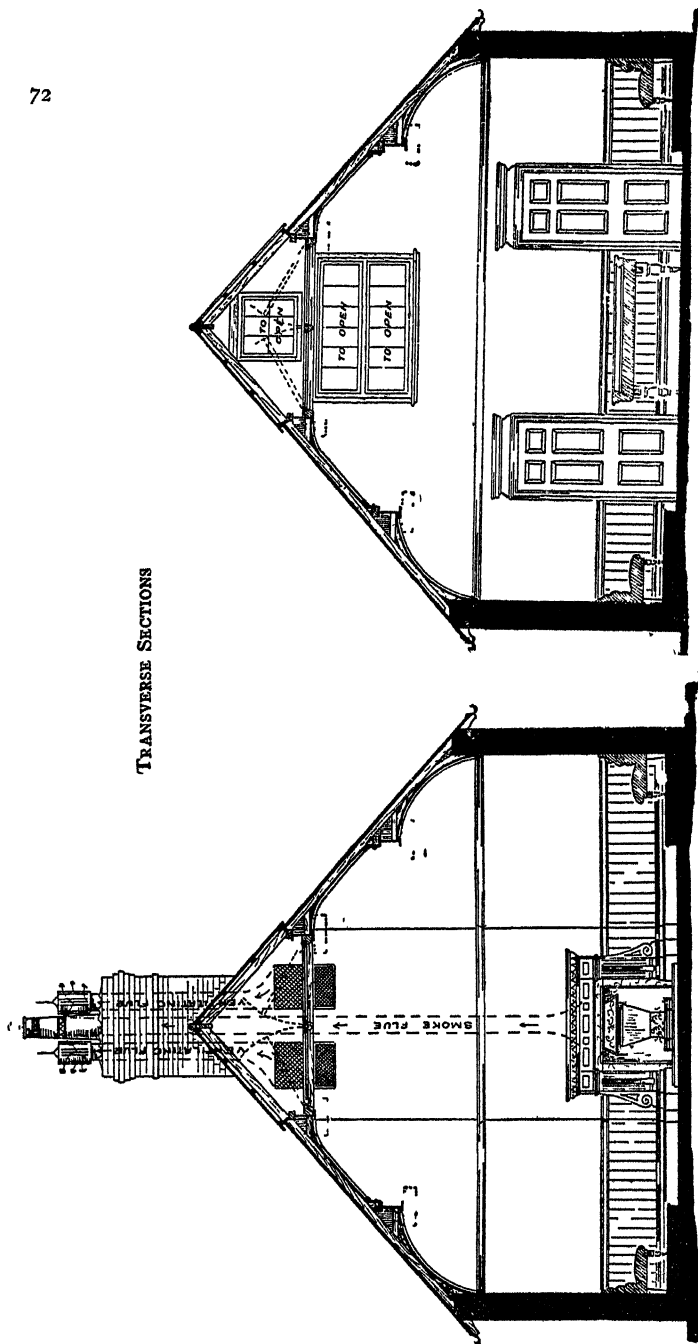
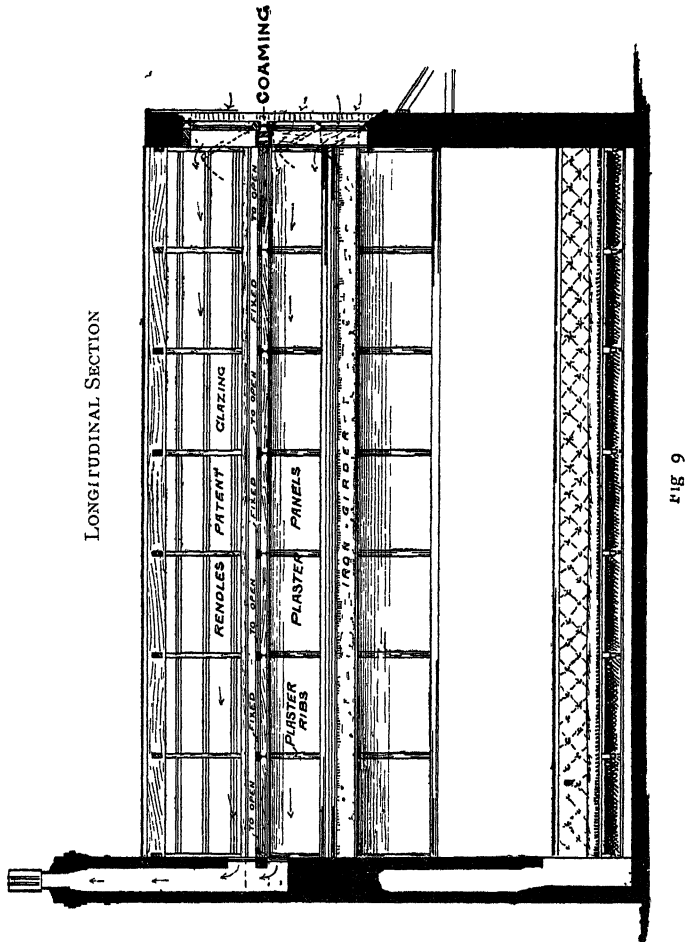


Fig. 8 —Mr. Samson's Sections of a Billiard-room (32' x 24')

poked by a chilly spectator just in the middle of a good break ;
and, apart from the strain on the nerves that such interference



with play causes, the question of the heat alone is one that the
players should be allowed to settle for themselves. Spectators

sitting near a window are apt to forget that a temperature which to them feels merely comfortable may be well-nigh intolerable to a player constantly on the move and exposed to the heat and glare of the lamp.

On such an important point as ventilation it is well worth while, if building a new room, to consult a competent architect. It may save many a headache afterwards.

LIGHTING

A considerable choice lies before the owner of a room. He can have electric light, or incandescent gas, or albo-carbon, or ordinary burners, or oil lamps.

If he is in the country, with no gas light and no electric light installed, he must of necessity fall back upon oil. Mineral oil is generally used, and the lamps made for the purpose appear to answer very well. One word of caution is, however, necessary. The lamps should only be put in the brackets *when required*, and should be removed immediately the play is over, so as to minimise the chance of oil being spilt upon the cloth. For the same reason the containers should be most carefully wiped before being put into the brackets, and with *constant* care of this kind no harm need happen to the table.

Glass chimneys, whether for oil or gas, are a constant source of danger. If one should break, the pieces of glass are apt to cut or scorch the cloth. They must, therefore, be very carefully handled. Chimneys of talc are now supplied, which are in every way to be preferred to the glass ones.

Of the various kinds of gas light the incandescent appears to give the most pleasant for play. The burners for this light are now fitted with a 'bye-pass,' which is a tiny flame never to be extinguished. With this fitting, when the gas is gradually turned on it ignites from the small leader on the bye-pass and the mantle gradually glows without a sudden shock. By this means the life of a mantle is much prolonged. If the light should be fitted without the 'bye-pass,' the greatest care

and caution must be observed in lighting up. A spirit torch should be used, and the gas should not be turned full on at once or the mantles will soon be destroyed. It will be found advisable to hold a tray or something of the kind under the spirit torch when lighting up, to prevent any of the hot spirit falling on the cloth.

Albo-carbon lights are not often seen now. With the best attention we are told that they are absolutely inodorous, but, practically, owing to carelessness or what not, in most rooms where I have seen them used I have found a disagreeable smell.

The old ring burner (which has the merit of simplicity) is seldom used, because of the tremendous heat which it generates. One good burner of modern type under each shade ought, with fairly good gas, to be sufficient for all purposes. It will save a great deal of gas as compared with the ring burner, and will cause fewer headaches.

Of the electric light little need be said. The globes are of the ordinary pattern, and the lights should be 32-candle power; 16-candle-power is not strong enough to light up the corner pockets, if the usual 6-light bracket is used, and it is an easy matter to shield the eyes by putting silk fringes at the bottom of the shades. It is advisable to have three or four spare globes in readiness in case of a break, and care must be taken to avoid touching the lights with a cue. If a glass does break, it will fly into thousands of pieces, and cover the table with fine particles of glass, which are troublesome to clear off without injuring the cloth.

Note by Major Broadfoot

The question of a good light on the table during the day is of great importance. For all persons daylight is probably healthier than the best system of artificial light; whilst for those whose breathing arrangements are delicate, and they, unfortunately, are many, daylight play may be almost obligatory. The main difficulty has been to provide a weather-tight skylight, and

Mr. Boyd has given excellent hints and advice on the subject. It is, however, worthy of consideration whether the skylight should not be abandoned in favour of a sound roof, the light being admitted at the sides and ends of the room; at a height above the floor sufficient to prevent the glare and shadows which result from ordinary side lights. Several advantages are obvious. The roof should be more weather-proof, the room less liable to be overheated in sunny weather, the frame which carries the lighting apparatus would cast no shadow on the table, whilst, when daylight is waning and arti-

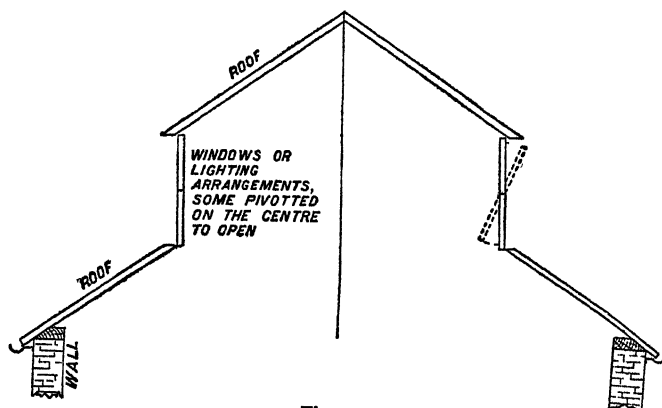


Fig. 10

ficial light is required, the struggle for supremacy between the two, resulting in a most objectionable dark spot directly under each shade, would be avoided. Each of these considerations is of much importance, and an intelligent engineer or architect would have little difficulty in designing an arrangement to meet them. The idea may be gathered from above sketch (fig. 10).

The heat in most skylighted rooms is unendurable in summer.—W. B.

TABLES

It would, no doubt, be very satisfactory if all the tables throughout the kingdom were of one uniform pattern, and more than one attempt has been made to bring about this desirable state of things. But such efforts have not been successful because the owners of the many thousand tables already in existence are naturally unwilling to spend money in alterations. And, again, individual tastes will constantly tend to develop typical differences.

The question of the size of the pockets first reached an acute form at the time when the championship was being frequently played for between Messrs. J. Roberts, jun., W. Cook, and Joseph Bennett.

The deadly effect of the spot stroke on a large pocket table was clearly recognised, and fears were already entertained that unless some radical alteration were made, all-round play would become neglected, and that the public would soon weary of watching a single stroke indefinitely repeated.¹

A committee of the leading players thereupon decided that in future all matches for the championship should be played upon a table with pockets three inches at the fall of the slate, with the billiard spot a little nearer to the top cushion, and with a smaller D. This last alteration, looking to the fact that the deliberate intention of the committee was to discourage, if not kill, the spot stroke, seems curiously illogical. If the spot is to go, something must be encouraged in its stead, obviously, all-round play must be developed. Why, then, cramp in any way the latitude up till then given to a player when playing from hand?

The subsequent history of the pockets is an interesting commentary on the labours of the committee. As they had expected, the spot stroke soon failed to draw, and for exhibition

¹ I do not, of course, mean that the spot stroke is a one-position stroke—far from it; but from an ordinary spectator's point of view it is summed up in the words 'potting the red *ad infinitum*.'

purposes it is, in 1895, as dead as Julius Cæsar. But the tight pocket failed to gain popularity. Here and there a more

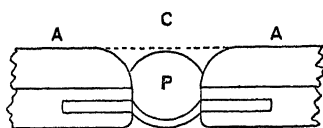


Fig 11

than usually gifted amateur erected one for his own amusement ; in one or two instances an enterprising billiard - room proprietor, who had other tables to fall back upon, tried one for an

experiment. But these tables are and must be, for all time, *caviare* to the general. The reduced **D** has never found a place on ordinary tables, so that the result of the committee's

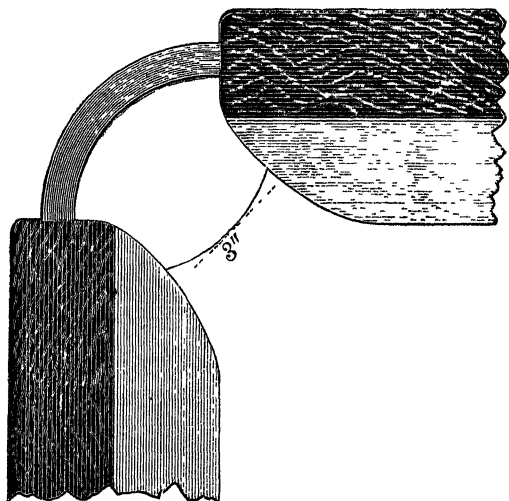


Fig 12

work is that the spot has gone, and the championship match, if there ever be one, must be played with the three-inch pocket.

Another attempt to secure uniformity has been made by the Billiard Association. Their committee, recognising the fact that the public would have nothing to say to

a tight pocket, and taking a $3\frac{5}{8}$ -inch pocket as a fair average size, caused templates to be made of those dimensions, and decided that tables made with pockets accurately fitted to the aforesaid templates should be called 'Standard Association Tables.' In two minor respects these pockets differ slightly from what, for want of a better word, we may call 'ordinary' pockets—first, the shoulders of the cushions are struck with a rounder curve; second, the outer edge of the fall of the slate at the middle pocket falls slightly within the inner line of the cushion, as shown in fig. 11, where AA is the line of the cushion, c the cloth, and p the middle pocket. From this

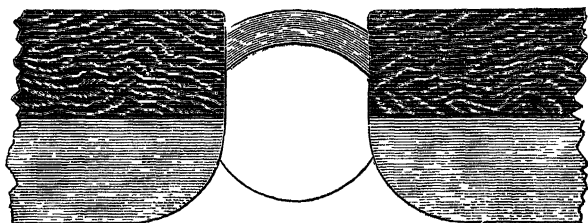


Fig 13

sketch it will be seen that the difficulty of middle-pocket jennies is sensibly increased.

Drawings of the Championship pockets (figs. 12, 13) and the Standard Association pockets (figs. 14, 15) are here inserted in order that the reader may compare them for himself. The drawings of the Championship pockets are taken direct from the templates in the possession of Messrs Burroughes & Watts, and those of the Standard pockets from templates the property of Messrs. Wright & Co.

An intending purchaser has, then, to decide for himself whether he will have a Standard pocket table; an ordinary $3\frac{5}{8}$ -pocket table (and in this case the pockets of different makers will vary slightly in size and shape); or, lastly, a 3-inch pocket Championship table.

Whichever may be the pattern selected, the purchaser, if he is really fond of the game, ought to get a good table well up to 'club' quality. If money is no object, elaborately carved tables can be bought up to 300*l.* or so ; but for the purposes of

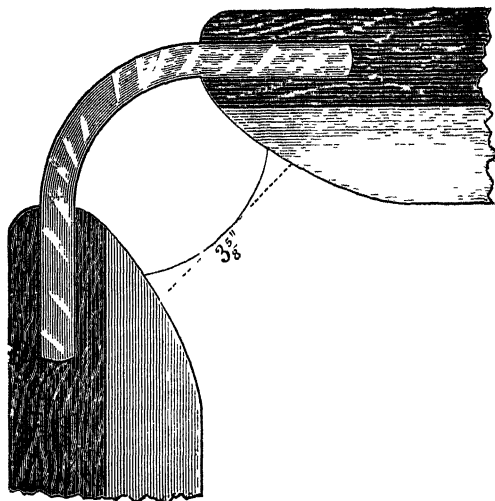


Fig. 14

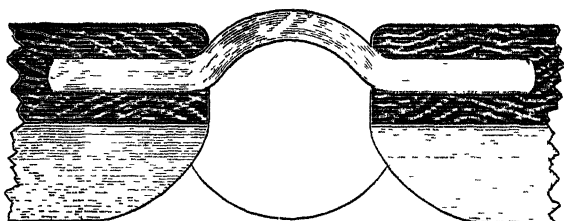


Fig 15

billiards all the carving is unnecessary. Let the bed be a thoroughly strong one, the slates of the best quality, the cushions according to the maker's best pattern, the cloth the best of its kind, and the woodwork plain

A plan of a billiard-table is given on p. 83, in order that the terms used in connexion with the table may be fully set forth, it is drawn on the scale shown below— $\frac{9}{20}$ in = 1 ft.



Fig 16

ORDINARY TABLE

- (i) Billiard spot $12\frac{3}{4}$ in. from face (or nearest point) of the top cushion.
- (ii) *Radius* of semicircle of D, $11\frac{1}{2}$ in.
- (iii) Baulk line, 29 in. from face of bottom cushion.

CHAMPIONSHIP TABLE

- (i) $12\frac{1}{2}$ in.
- (ii) First $9\frac{1}{2}$ in. then 10 in.
- (iii) 28 in.

It is essential to the true running qualities, as well as to the lasting qualities of the table, that the frames (which few people ever see) should be exceedingly strong, thoroughly well seasoned, and accurately levelled. The slightest warping of these frames is fatal to the preservation of the table, and they are made, for this country at any rate, of the most carefully selected red deal. If the table is intended for the tropics, mahogany or teak should be used. As soon as the frames are bolted to the legs (which, by the way, are erected on an absolutely level base), they are carefully trimmed over with a long plane, and, until the straight-edge fairly meets the frames all over, in whatever direction it may be tried, the bed is not ready for the slate.

Slates come from the Penrhyn or Aberdovey quarries, as the case may be. Some makers prefer one quarry, others another. After they have been rough-hewn to size and thickness, they are passed through a planing machine, which reduces the surface to a rough level. They are then put into another machine and

cut to size, each slate being now $2\frac{3}{8}$ feet wide and 6 feet $1\frac{1}{2}$ in. long. Then the five slates¹ necessary to make a table bed

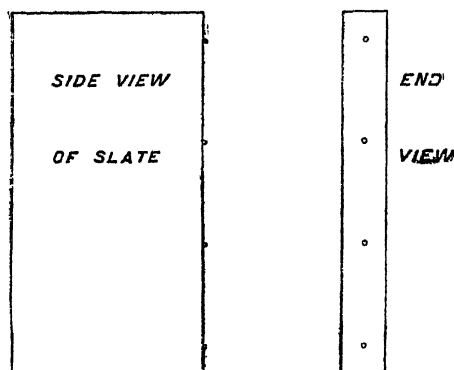


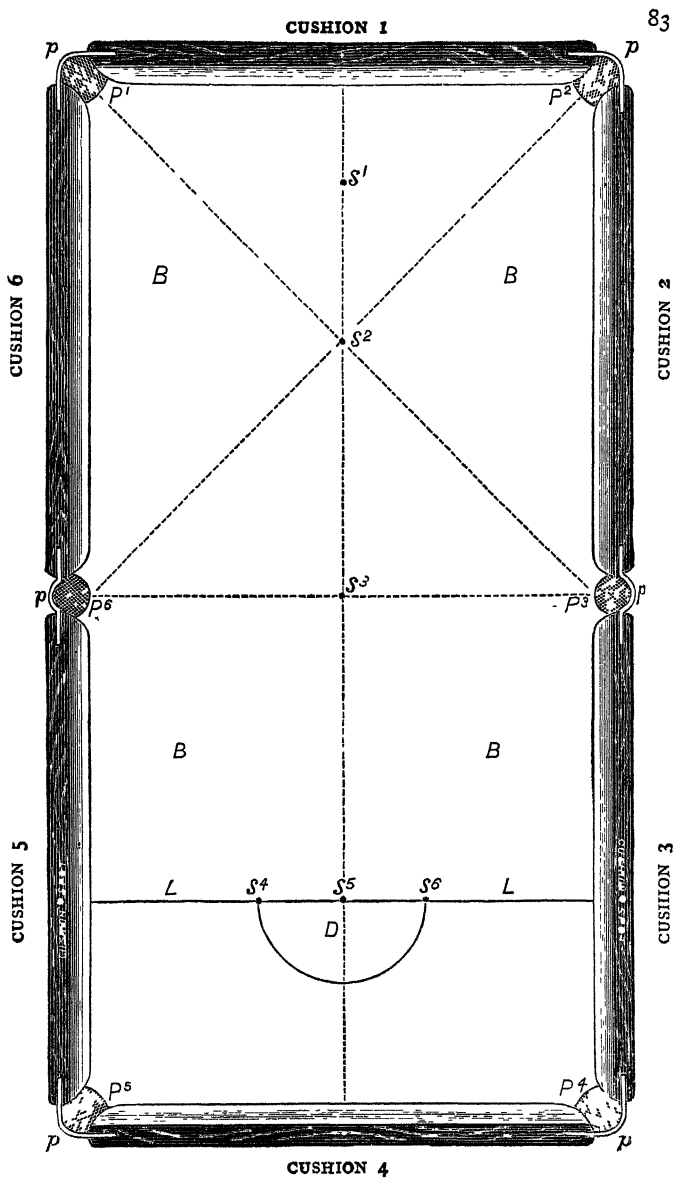
Fig 17

are laid together upon a solid level bed, and 'floated' with coarse sand; then fine sand is used, and yet finer, till the face is brought to a polish. Meanwhile, every inequality is carefully

References to Diagram

B, B, B, B. Bed of table	F ¹ Right middle pocket.
Cushion 1. Top cushion	F ⁴ Right bottom pocket.
Cushion 2 Right top side cushion.	F ⁵ Left bottom pocket
Cushion 3. Right bottom side cushion	F ⁶ . Left middle pocket
Cushion 4. Bottom cushion.	<i>p, p, p, . . .</i> , Pocket plates.
Cushion 5 Left bottom side cushion.	s ¹ The spot, or the billiard spot.
Cushion 6. Left top side cushion	s ² . Pyramid spot
D The D.	s ³ . Centre spot
L, L Baulk line	s ⁴ . Left spot of the D.
F ¹ . Left top pocket.	s ⁵ Centre spot of the D.
F ² Right top pocket.	s ⁶ . Right spot of the D.

¹ Formerly only four slates were used, with the result that a joint ran straight across the table from the centre of one middle pocket to the other. If, then, warping or subsidence of the floor ensued, an ugly ridge arose opposite the pocket, making it unmissable from one side, and almost impossible from the other.



tried down, so that before the slates leave the 'banker,' as it is called, the straight-edge must touch them fairly all over.

Holes are bored in the sides of the slates and metal dowels leaded into one side, as shown in the sketch (fig. 17), so that each slate may fit into the next, and then large holes are drilled out on the underside of the slates and steel nuts leaded in to take the long screws which fasten the cushions firmly to the slates (fig. 18).

On the underside of each slate a bevel about two inches wide is made, in order that a chisel may be slipped between the

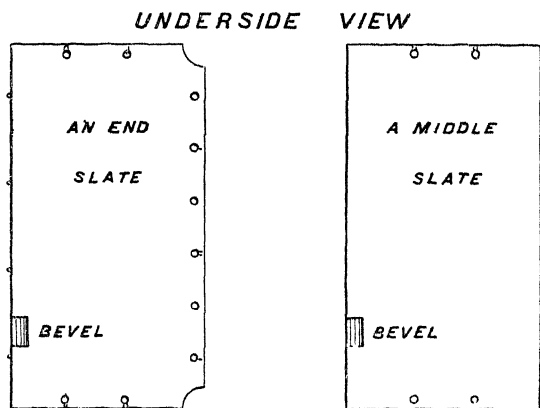


Fig 18

slates to separate them when dismantling a table; and if one is far away from professional assistance, and is obliged to take down a table according to one's own lights, it is well to look carefully for this bevel, and it may save many a cracked slate.

Various thicknesses are used, from, say, $1\frac{1}{8}$ inch up to and over two inches, the general principle being that, the thicker the bed is, the quieter the balls run. But, as in most other things, there is a reasonable limit, because the weight of the slates increases so enormously with the increased thickness, that beyond two inches in thickness they become very difficult to handle, and

the risk of damage in transport is more than proportionately increased.

Therefore, one may call two inches a reasonable maximum, and $1\frac{1}{8}$ in. a fair minimum for the thickness of slates.

CUSHIONS

No part of the table has undergone such radical changes in the last forty years as the cushion. Billiard-players of even twenty-five years' experience are already beginning to forget the miseries they endured in the early days in endeavouring to make a respectable shot from under the old high cushions, and a school of billiard-players is rapidly growing up who will never realise the difficulties their fathers encountered.

I am permitted by the courtesy of Messrs. Burroughes & Watts to insert four drawings from 'Billiards Simplified,' which show the difference of the stroke from under the cushion—fig 19 in 1826; fig 20 in 1837; fig 21 in 1869; fig. 22 in 1895.

The more the player's cue is elevated from the horizontal, the more difficult it becomes to direct the course of the ball, and with the old high cushions it was no easy matter for an ordinary player whose ball was tight under the cushion to hit another ball at the length of the table

But it is not only for the reduction in the height of the cushions that we have to thank the makers at the present time. The early rubber cushions were exceedingly sensitive to cold, and unless the greatest care and trouble were taken with them they became hard, untrue, and useless; and if they were once allowed to get 'frozen,' as it was called, they never regained their original elasticity. About the year 1870 it was the exception and not the rule to find a country-house table worth playing on; now, thanks to modern improvements, no one need despair of keeping his table in excellent order.

Vulcanite specially prepared was at one time recommended for country-house cushions. But although cushions of that

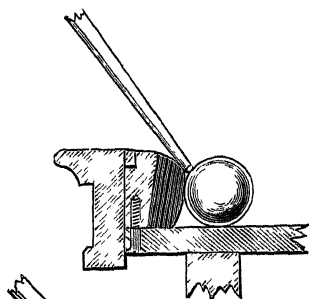


Fig 19

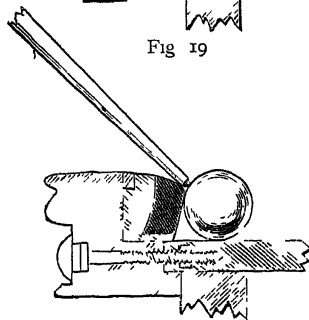


Fig 20

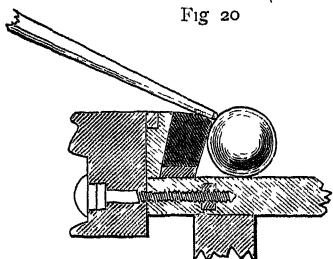


Fig 21

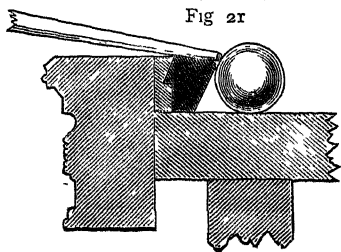


Fig. 22

material were unaffected by frost, they were slower and deader than 'native' rubber cushions, and soon became unpopular. The makers have at last found a way of preparing cushions so that with ordinary care they can be kept true and fast in all weathers, and it is possible, and indeed usual, to play in the country with the same kind of cushions as are used in the leading London clubs

The manufacture of these cushions is a delicate piece of work ; but one may say generally that the rubber is applied to the backing in thin strips, one 'pasted' on the top of another with some liquid preparation of india-rubber similar to, if not the same as, the stuff one uses to mend a hole in wading-stockings.

For those who wish to go deeper into the subject, a day at the Patent Office Library and a careful study of the various patents obtained by the principal makers with reference to the manufacture of cushions will prove an interesting

piece of research, and will place the scientific reader in possession of information which for obvious reasons could not properly be included in the present work.

CLOTHS

The bulk of the cloth comes from Stroud, although a good deal is manufactured in Yorkshire, and the finest quality is passed through two steel rollers, while a sort of knife like a mowing machine removes a considerable part of the long nap. This is the kind of cloth that one sees upon the tables used for exhibition matches. It would be unsuitable for a club because, having a comparatively short nap, it would soon be rubbed smooth and bare by the incessant play, and the brushing and ironing such play involves. For country houses, however, it is the very thing. The short nap which renders it unsuitable for clubs makes it easily manageable in a private house ; it requires a minimum of ironing ; and even if the table be left to itself for some time, there will be no staring nap to be seen when next the table is used.

For clubs the next quality, with longer nap, is more useful ; more brushing and more ironing are required, but the cloth is better fitted to resist the everlasting friction of the player's hands and the incessant brushing that becomes, owing to the chalk from many cues, an almost hourly function.

And here, notwithstanding all that has been said and written about the subject, let me say that the ironing in club-rooms is in most instances very much overdone. It is not altogether the marker's fault ; members complain that the table is running slow, and on goes the iron as a matter of course, generally far too hot. Nearly every maker will tell you that the iron is no use unless it is thoroughly hot ; what he means is, that he cannot get the glaze upon the cloth without it, but the proper answer is that nobody wants, or ought to want, the glaze, and that it is directly detrimental to scientific billiards.

The cooler you can use the iron and keep the table in order, the better for the life of the cloth and the better for the club play.

At the seaside, or in any damp climate, constant ironing becomes a necessity, in order to thoroughly dry the cloth, but even under such circumstances there is no necessity to scorch it.

A good cloth can be told by the feel only ; it should be firm and leathery, closely woven, and not too elastic.

In such an important matter as a cloth, however, a purchaser would be well advised to place himself unreservedly in the manufacturers' hands, and leave the selection to them.

TO ERECT A TABLE

Having fixed upon a suitable foundation (and for this a competent architect should be consulted), stand the legs up in the places they will occupy , fit the frames (which are all numbered) into the mortices, and screw the frames to the legs with the long bolts provided for the purpose.

At this stage it will be well to set about levelling, *before* the weight of the slates comes upon the bed, and if you get your wedges in now, you can more readily knock them a little further when the table is completely put together than if you had left them to be inserted last of all.

Having thus got the bed level, lift the slates on carefully, and lay them on the bed an inch or two apart. Place the centre slate accurately in position, slide the next one up against it, and enter the dowels of the one into the corresponding holes of the other fairly and squarely , proceed in like manner with the other slates till they are all joined If there be any cracks in the upper edges of any of the slates, fill them in with plaster of Paris

Lay on the cloth, taking care that the right side is uppermost, that the nap runs from what is to be the bottom of

the table towards the top, and that the cloth is square to the table. Go to the top of the table, drive in a couple of tacks,¹ and then go to the bottom of the table, pull the cloth tight, and drive in two more tacks on the middle line. Then stand at one of the middle pockets, pull the cloth a little towards you, and tack it lightly on each side of the pocket; next go over to the opposite middle pocket, pull the cloth tight and tack it as before. Then at each of the middle pockets in succession take a good handful of cloth and a good pull and tack what you get underneath the pocket. Smooth out the cloth over the fall of these pockets, but do not at present trouble about a wrinkle or two, as they will be smoothed out later. Get somebody to hold the cloth firmly at the middle pocket, and go yourself to the corner pocket and pull along the side of the table, using considerable strength; proceed in like manner with the other corner pockets. If all this has been done carefully, neatly, and firmly, the cloth ought to be well stretched the length and breadth of the table. The amateur will find the greatest difficulty in getting the cloth to lie smooth along the sides and ends of the table, and especially at the fall of the pockets, for the cloth must be humoured so as to come fair over the pockets without creasing. This is a work of time, trouble, and neat-handedness; you must not hurry; take plenty of time, plenty of tacks, and by degrees success may be attained.

Covering the cushions with cloth is such an exceedingly difficult and delicate operation that it should not be attempted by an amateur; very few workmen can cover a cushion as it should be covered, and, therefore, it is useless to describe the operation. It will be found prudent to order the makers to cover the cushions before sending them out, indeed, some clubs abroad have two sets of cushions, so that while one set is in use the other may be in England for repairs.

¹ Battens are screwed to the slates in order to take the tacks which fasten down the cloth.

And now to put the cushions on the table. Take care that you have each one in its proper place (the cushions will be all numbered), fit them all firmly on so that the holes in the woodwork exactly coincide with the holes in the slates; push in the bolts and screw them *all* up *hand* tight. *Don't* screw one as tight as you can at first, or you will strain the cushion and the nut, but when you have got them *all* fairly tight, set them up with the brace as tight as your strength will allow, taking care that each is similarly treated. With modern steel cushions it must be remembered that slots have to be dealt with instead of holes, and therefore the position of the cushions must be carefully measured, or one pocket will be larger than another.

Having screwed up the cushions quite tight, fit in the pocket plates and pass the long thin screws up from below through the woodwork of the cushions and screw all tight. (Some modern cushions are fixed with what are called invisible pocket plates; these have to be put into the cushions before the latter are fixed). Modern pockets are made with holes at the side closed by an india-rubber ring, so that the balls can be taken out without putting the hand into the pockets. These are an improvement on the old pattern, for the shoulders of the cushions will last longer and will not be pulled out of shape.

It now only remains to get the table quite level. Work the level about and correct any slight errors by slightly jacking up the low part, and by pushing the wedges under the nearest legs further home. Rather under-compensate at first, because if you overdo the thing at all, you will find yourself obliged to go on overdoing it till your table is eventually raised appreciably above the regulation height, which should be 2 ft. 8 in. from the floor to the cloth, *not* to the top of the cushions.

If obliged to put up or superintend the erection of the lighting apparatus, remember that the flame is generally three feet from the cloth.

One more word of advice. If you can secure an expert to erect your table, never do the work yourself ; but if you cannot command such aid, the foregoing hints may be of service.

The spots should be of thin court plaster, and should be carefully stuck on the places shown in the diagram, p. 83.

Pipeclay, white chalk, black chalk, or a lead pencil can be used for marking a baulk line ; and, whichever you select, remember to mark the lines lightly or the cloth will soon become grooved and damaged. Pipeclay, which is the least likely to damage the table, has the drawback that it very easily rubs out, and, in consequence, involves constant ruling, so that, on the whole, a lead pencil carefully and lightly used can be recommended.

If the table be a Championship one, the position of the afore-mentioned spots and lines requires modification, as shown on p. 81.

BRUSHING AND IRONING

It is impossible to over-estimate the value of continual and regular brushing. With one of the finest quality cloths, unless the climate be damp, once or twice a week at the outside will be enough for the iron, *if the brush* is used as it should be. At the conclusion of play the brush should *always* be used freely and at once, so that all the chalk marks may be removed before they are rubbed through the cloth. Remember always to use the brush *with the nap*—that is, from the bottom towards the top of the table.

To iron a table properly, place the iron at A C (fig. 23), and then take it steadily along the table from A to B. *Lift it off* ; then go back to the bottom again ; put the iron down at C E, and take it along the table from C to D. Then go from E to F ; and finally from G to H. Proceed then in a similar manner with the other side of the table. Avoid as much as possible letting the iron come into contact with the cushion.

It will be observed that the iron in the sketch is put down diagonally, the reason being that if, when ironing the breadth next to the side cushion, the iron comes in contact with the shoulder of the middle pocket, it will slide on harmlessly and not damage the cushion. If it were held squarely, the sharp edge of the iron might cut the cloth of the cushion.

Bear well in mind that if at any time the cloth is turned end for end, the brushing and ironing will have, as before, to

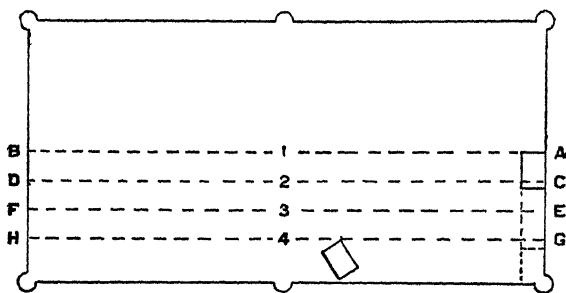


Fig 23

go with the nap, and will, therefore, start from the top end of the table and proceed towards the bottom.

Let the iron be too cold rather than too hot. It is easy to go over the table a second time, and after a little experience the proper temperature will become known. If the cloth be once scorched it will never be satisfactory. Therefore :

Rule 1.—Never put an iron on the cloth until you have *practically* satisfied yourself that it is not too hot.

Rule 2.—*Never iron an unbrushed cloth.*

UNDERSIZED TABLES

Tables can be bought 10 ft. by 5 ft., 9 ft. by $4\frac{1}{2}$ ft., and so on down to 6 ft. by 3 ft. There are also combination tables

which serve as dining-tables as well, and they seem to answer very well in small houses.

For the earnest student a so-called 'spot-stroke' table 6 ft. by 3 ft., which is really a section of the top of a full-sized table, made after the fashion of the sketch (fig. 24), will afford an immense amount of amusement and practice; for, in addition to the 'spot,' the top of the table game, 'rail' cannons, &c., can be practised. The pattern of the spot-stroke table is a

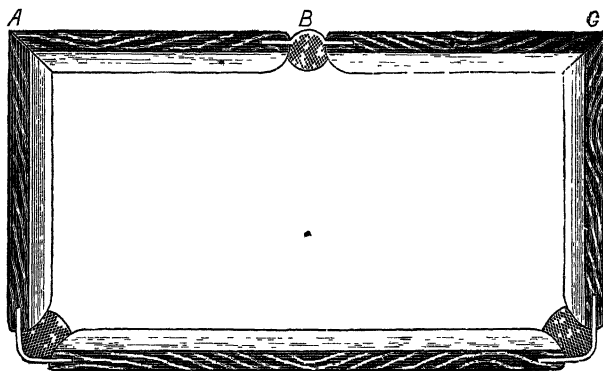


Fig. 24

matter of fancy and cost; the side A, B, C need have neither cushion nor pocket.

If the small tables do not satisfy the ambition of the player, he has yet another course open—viz. to get a French table, and seriously study the cannon game in all its phases; and signs are not wanting that this beautiful game, as it is becoming better known, is finding favour with advanced players.

It may not be generally known by the vast army of people who rent furnished houses for a few months at a time that billiard-tables can be hired from the leading makers by the week or the month, the rate being from, say, 2*l.* 2*s.* to 3*l.* 3*s.* a month, with a small payment in addition to cover erecting and dismantling. Lighting and all fittings are, of course, included

in the above charges, and thus, without the expense of purchase, a billiard-table can be brought within anyone's reach.

Before leaving the subject of tables, an ingenious modification of an old arrangement whereby the balls are automatically returned from the pockets to the baulk end of the table may be mentioned. It has been patented by Messrs. Orme & Sons, and will be found a convenience where no marker is kept, specially in practising losing-hazards from baulk. For spot, or top of the table play, it is inconvenient ; but the drawback of having to return to baulk for the ball after each hazard may be remedied by placing a plug or false bottom into each top pocket (failing anything better, a pocket handkerchief will do), so that the ball may be removed in the usual way. Mr. Rimington-Wilson has devised a mode of meeting this difficulty, and Messrs. Orme have acquired the right to use his patent.

BALLS

Balls are made of various substances, generally of ivory, the standard diameter for the English game being $2\frac{1}{8}$ inches.

Every practical billiard-player is painfully aware of the difficulty that exists in procuring a really satisfactory set of ivory balls. I propose, therefore, first to touch on their manufacture, then on their treatment, and finally to offer a suggestion or two as to their purchase and preservation.

It is said that only one kind of tusk, that of the female elephant, is suitable for ball-making ; and the size of the tusk, again, is closely regulated by the size of the ball required ; for it is important that as little as possible of the outside of the ivory should be pared away.

As the tusk comes into the workshop, the upper part (which is hollow) and the hard point are sawn off, leaving the piece from A to B (fig. 25). This is generally sawn into five blocks, each of which will eventually become a ball ; these blocks are roughed out and turned into approximately spherical shape and left for about a year to season, before they are touched again, in order

that the inevitable shrinking of the grain may proceed naturally and slowly.

Now, the ball from end B is closer in the grain than the ball from end A, and therefore they will differ in weight ; and as it is most important that the three balls should be of equal weight, no small trouble is experienced, after finishing, in finding three that will pass the test of the balance.¹ If five sets can be got out of a hundred balls, the makers are satisfied, and even then perhaps only one set will be up to match standard.

When one considers the cost of ivory, the time and delicate work involved, and the scarcity of sufficiently skilled workmen, it is small wonder that a good set of balls is an expensive luxury.

If balls are to last well, much care must be taken of them ; but unhappily their ordinary treatment at a club is too severe

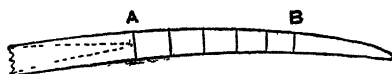


Fig 25

for their delicate constitution. In many cases they are put upon the table as soon as they arrive from the makers, before they have had time to get acclimatised to the change of temperature, and, as full-sized balls are sure to seem heavy after balls that have been once or twice adjusted, the heaviest cues in the room are brought to bear upon them with literally crushing effect.

Now, as the turners have removed a little of the hard outer surface, the newly exposed surface ought to have time to harden ; and, further, ivory is very susceptible to changes of temperature, sensitive to damp, and needs acclimatisation in its new home, to enable it to withstand the shock of collision without cracking. The leading players, when they get a really good set of balls, never think of playing a hard shot with them

¹ Each ball weighs about $4\frac{2}{3}$ ounces

until many days, or even weeks, are gone by. Every day they take them out and gently tap them along with nursery cannons and quiet little strokes, until they are sufficiently seasoned to stand the shock of a long game ; hence their balls last much longer than club balls.

Anyone who has served on the billiard committee of a London club may remember how his life has been made a burden to him by the never-ending complaints of members on the subject of balls. He might reasonably reply . ‘Gentlemen, the matter rests mainly with you ; if you are determined to have good balls, you must make up your minds that they are to receive good treatment’ But how that much-to-be-desired arrangement is to be ensured I confess I cannot say. The balls are common property, and must be as much at the service of those who know nothing and care less about the game (save as a means of whiling away an hour or two) as of the limited few to whom the difference between good and bad balls means a great deal.

Some clubs adopt the principle of paying a leading firm so much per annum (like a subscription to a lending library), upon the understanding that the firm is to change the balls as often as the club likes. This system is a bad one for makers and clubs alike. There is no inducement to the makers to send their *best* balls to be subjected to the severe ordeal of everyday club play. Rather do they prefer to keep such balls for customers who are able to take the greatest care of them ; and it follows that makers, having from the nature of things only a few of the very best sets, cannot be blamed if they send more moderate articles to take their turn in the ‘lending library’ arrangement.

The following is, I think, a better system. Several sets of balls are bought *in the rough* to start with, with the date of their purchase marked on a label attached to each set. These balls are then hung in a net under the table and left undisturbed for one, two, or three years—the longer the better ; they are then adjusted and hung up again ; after another interval a

set is again adjusted, made ready for play, and, finally, having been kept for, say, another fortnight or three weeks, is put upon the table. At the same time another set to take its place is bought in the rough, and, as every set in turn is brought into use, another rough set is purchased. By this means there are always eight or ten sets seasoning in the particular temperature for which they are required.

Every good system has its weak point, and the weak point of this one is, that it is essential to its success that the set which comes back from adjustment is the identical one which was sent. I do not suggest that the leading makers would knowingly make a mistake of this kind ; on the contrary, I know as a fact that great care is taken in the turning shop to prevent any such accident ; but one set of balls is very like another, and it is quite possible that an unintentional change might take place. However, with a view to render such an accident impossible, one firm, at any rate, willingly allows the man in charge of the balls to stay in the shops while they are being adjusted, so that he can take them away with him as soon as they are finished.

If neither of these systems is adopted, the best plan is to buy the balls for the ensuing billiard season in the early summer, when little or no play is going on, and keep them in the room seasoning until they are wanted in the autumn. Any time and trouble expended on their careful selection will be amply repaid before the year is out, because the balls so selected will have hardened up, and will be less liable to crack than others bought a few days before they are required for regular use

Balls purchased from, or adjusted by, a first-class firm should not require to be tested for size and weight, because they have been accurately gauged (fig 26) and weighed before they are sent out ; but a rough-and-ready test may be useful if one finds oneself about to play in an out-of-the-way corner of the country, and one half suspects the presence of the inevitable pool ball. Place the three balls in a line touching one another and one of the cushions, and then lower the eye till the line of sight becomes a tangent to the top of the balls and the top of the woodwork

of the cushion ; by this means irregularity in size is easily detected. If you suspect the balls to be foul, set up balls 2 and 3 touching ; note the exact spot on cushion where 3 should hit—viz. that indicated by the prolongation of a line through the centres and point of contact.

Then play the plant with ball 1 and note deviation. If in doubt whether balls or table be in fault, reverse the stroke ; go to the opposite end of the table and play back over the same line. Good lines to select are the diagonals which are the longest on the table.

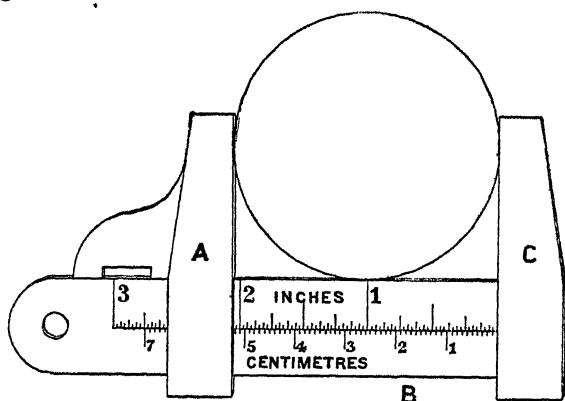


Fig 26

‘How can you tell a good ball?’ is a question that is often asked, and the late Mr. Frank Buckland answered it as follows. ‘The test is this : the ball is rolled gently along a billiard-table till it stops of its own accord. If at that moment it falls either to one side or the other, it is useless to the player ; if, on the contrary, it remains motionless on the same line on which it was originally projected, it is allowed to pass muster.’ Such a test, however, would be too much for 99 balls out of 100. First, ivory is not like Whitworth steel ; it is a substance of varying density, and even if by the skill of man it could be turned into *an absolutely perfect* sphere, it is hardly likely that

the centre of gravity of each piece would coincide with the centre of the sphere ; secondly, in order to make the experiment at all satisfactory, the table should be absolutely level, the cloth perfectly new, free from dirt, of the finest quality, and most carefully stretched ; and, lastly, the ball must be struck *exactly* on its vertical centre line. Each of these conditions presents some difficulty in attainment , to combine them all is well nigh impossible.

Every ball, to speak generally, will fall over a little, and it may be due to the failure of *any one* of the above conditions. Therefore, it is safer to say that the less a *truly struck* ball changes its horizontal axis the better ball it is. For the owner of a private table, I should say the safest way to get a good set is to ask a first-class professional player, whom he can trust, to make the selection ; of course he would have to pay a good price, but he will no doubt thus get a better set than he himself could choose. If he should in this way become the fortunate possessor of a good set, he ought to lock them jealously away, only to be produced when he finds an adversary that he can trust with them ; and he will find it good policy to keep another set for ordinary use

Ivory is getting increasingly scarce, and everything seems to point to the fact that as time goes on good balls will become still more costly, and more difficult to procure ; and one is led to the conclusion that the next generation will have to find some substitute, or leave billiards to millionaires. Many attempts have been made in the last few years to get over the difficulty, and composition balls of various substances have from time to time been placed upon the market ; but the earlier kinds have not found much favour—first, because they were believed to be explosive ; secondly, because they did not possess sufficient elasticity ; and, lastly, because they showed a tendency to soil, and pick up any dirt they might happen to pass over.

About the year 1893 or 1894, however, a new composition called Bonzoline made its appearance. The makers

claim for it that it is heavier (specifically) and *more* elastic than ivory, and, as far as observation at present goes, their claim seems to be well founded

NOTE BY MAJOR BROADFOOT

BONZOLINE balls are, as a rule, more trustworthy than ivory; they last longer and are cheaper. The angles at which they come off on impact differ slightly from those resulting from ivory, but the difference is greater in imagination than in reality, and possibly some sets are more nearly like ivory than others. They are specially suitable for games of pool or pyramids.

Crystalate balls are commended by Aiken, Cook, and other professional players as the nearest approach to ivory balls; from the softest stroke up to moderate strength their behaviour is practically identical, but with forcing strokes the angle after impact is squarer. Mr Rimington-Wilson considers crystalate balls 'excellent, and the departure from the ivory angle is less than with any other make.' That is high testimony to their suitability for play, and it is confirmed by the great number of long breaks which have been made with them. Stevenson has made 703, Weiss 501, whilst Inman, in addition to 416 and 374, has scored 800 in eighty-one minutes, 195 off the red ball alone, and many breaks between 300 and 100.

CUES, HALF-BUTTS, RESTS, ETC

Cues should be made of old and carefully-seasoned wood ; ash being generally used. There are three kinds—(1) plain cues ; (2) French butted ; (3) English butted.

The first kind are of course the cheapest, but, being made of 'self' wood throughout, they have more tendency to warp, and their balance is not so finely adjusted ; hence one seldom sees an advanced player using a plain cue. Of the second and third kinds, the French butt is solid, the English butt is veneered on, and, therefore, if a light cue is required, a French butt cannot be selected.

In making the French butt the ebony is sawn in two V-shaped cuts, and the ash is cleared out, so that when the cue and the butt are driven together, with hot glue run in, an exceedingly tight joint is made, which never comes adrift.

In making the English butt, two broad and two narrow tapering pieces of ebony, mahogany, or other hard wood, are glued to the sides of the ash cue which have been squared off to receive them, and when the glue has thoroughly set

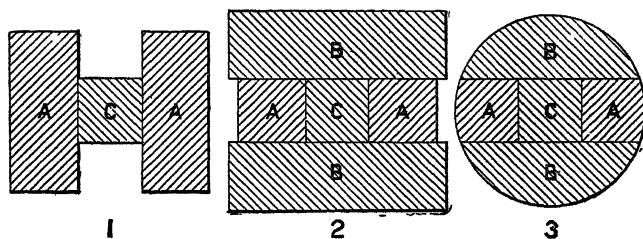


Fig 27

the whole butt is planed down into shape, sand-papered, and polished. The above sketch may give a clearer idea of the process (fig. 27).

At first sight the preparation of what one may call the shaft of the cue seems simple, and a little ordinary planing all that

can be required ; but this is very far from being the case ; indeed, the whole secret of successful cue-making lies in the careful manipulation of the ash shaft. Every piece of ash, generally speaking, will have a soft spot or two in it ; and if the wood were planed carelessly all round without reference to these weak spots, the shaft would warp to a certainty, for every piece of wood has a tendency to cast towards the centre of the tree from which it was cut ; therefore, the maker humours the wood and planes more from the hard grain and less from the soft, so that they may be made to balance one another , and then, if there be still a slight tendency to warp in any direction, the piece of butt *on the opposite side* will be made a trifle longer, so that it may have a little more leverage in counteracting the warping tendency. No doubt there are perfectly true, straight-grained pieces of ash, but they are very rare, and a leading cue-maker has told me that he doesn't come across more than two or three in a year. All the rest require special treatment, and about three out of every dozen that come in from the seasoning shop have to be rejected as hopeless as far as cues are concerned, though they may serve for rest-handles or for dowels.

When the cues are finally turned out as finished articles, a purchaser will find a considerable range in weight, balance, size, shape of butt, and size of top to select from, showing that individual fancy is an important factor in the case. There is no magic in any particular weight, or in any particular shape or kind of grip. What a player fancies, he will play best with, and he will soon get accustomed to a particular pattern, which he ought to adhere to steadily.

Cues vary from 14 oz. in weight to 18 oz. and even 20 oz., and I have seen a few of over 20 oz. ; but, speaking generally, 16 oz. to 16½ oz. is a very usual weight. Peall plays with a very light cue, about 14 oz. Roberts uses one weighing about 16 oz. Good results can, therefore, be produced with widely varying weights, and a player can suit himself. With a very heavy cue

the 'touch' is likely to be coarse ; but I have seen an amateur make over twenty spots with a cue of over 20 oz.

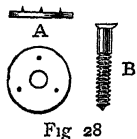
With regard to the top, its diameter varies from $\frac{3}{10}$ in. to $\frac{6}{10}$ in. for English cues, and within fair limits a medium-sized top is more easily and certainly used by ordinary players than a very fine one.

TIPS

Tips are now always made abroad, and are supplied in boxes of assorted sizes, so that a purchaser is sure of finding some the size he requires.

It is essential to good play that the cue should be well tipped ; and the process of tipping has been so often described in existing works on billiards, that everyone *ought* to be able to tip a cue for himself. The golden rule to be observed is that the top of the cue must be *absolutely flat*, and the tip should fit the top as closely as possible. If the tip is a well-fitting one, it should be warmed (and the top of the cue also), and stuck firmly on with cue cement. There is an ingenious little clamp to be bought, which holds the tip tightly until the cement has set. After the cement is fixed, the tip should be gently hammered until it is flat, and any overhanging leather or cement must be carefully removed, first with a knife and then with sand-paper. *Avoid touching the cue* itself with the sand-paper, if possible ; and you will find it a good plan to wrap a piece of paper round the cue while you are rubbing the tip. If the cue be much scratched, the wood will begin to 'stare' and feel rough in the fingers. Nothing is so bad for the cue as the common amateur trick, at the commencement of play, of rubbing the cue from the tip, say two feet down, with coarse sand-paper. Players say they do it to clean the cue ; but the best way to do that is to get a damp cloth and wipe the cue well, and then rub it hard with a dry one. By this means your cue will be very clean, slip well through the bridge, and acquire a fine, hard polish, so that it will feel much the same in damp as in dry weather.

Some players do not feel neat-handed enough to undertake the tipping of a cue ; for them I would recommend a little brass plate with three spikes in it, which screws into the top of a cue shaped as in fig 28. If the cues in a country house are so fitted, anyone can put a tip on in a couple of minutes. You have merely to put the tip on the spikes and gently hammer it home.



Another device is to fit the cue-top with a brass screw socket, into which a screw with a flat top is screwed, and the tip is fixed on the movable screw (fig 29). The advantage of this plan is, that a player may have three or four screws all duly tipped, and as one tip wears out he simply takes out the screw and screws in another. For country-house visiting this, combined with a screw-jointed cue (fig 30), makes a player quite independent of local cues and local tips, especially as with a jointed cue he can have a spare top joint.¹

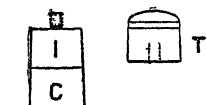


Fig 29

Another simple arrangement is the ivory top fitted with a screw, as shown in fig. 29.

After long service a cue will wear away at the top. It is worth remembering that such a cue need not be discarded, as it can easily be restored to its original condition. The usual

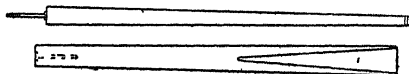


Fig 30

remedy is an ivory top, but a better one is to get the cue

¹ The jointed cue with a spare top joint renders the above devices unnecessary, and they are all open to some objection.

spliced or fitted with a screw, according to the illustration (fig. 31). Whichever plan may be adopted, the great thing is to pick an *old* seasoned bit of ash, nothing being better than a piece of an old cue with a good straight grain. By adopting

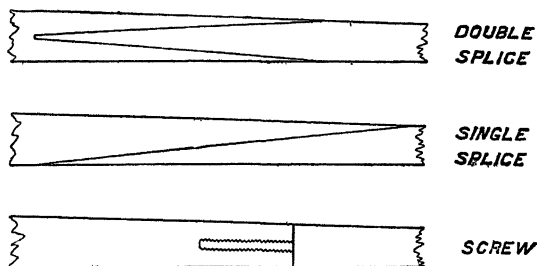


Fig 31

this plan, the top can be made as large as may be desired, and a good bit of wood in the most delicate part of the cue is ensured.

The writer has a cue with a single splice, which has been in work for years, and is so well put together that even at this time it is difficult to find the joint ; but, on the whole, he ventures to think that the double splice is stronger and neater

HALF-BUTTS

Half-butts and long-butts, on account of their length, have to be made of pine for lightness' sake, and little need be said about them. They are cumbrous things, and a disagreeable necessity.

It is a good plan to wipe the upper end of the butt *every day* with a damp cloth, and then with a dry one, because they always collect a quantity of dirt, and are apt to run stickily through the rest. If these butts were not varnished, but well polished with boiled oil, they would be much pleasanter to play with.

RESTS

Rests are now usually made in the shape of a diagonal cross, the upper drawing of fig. 32, the old-fashioned pattern being very seldom seen.



Fig 32

The chief objection to the cross pattern is that it is troublesome to manipulate in the neighbourhood of the cushions, and some years ago Messrs. Burroughes & Watts brought out a rest which gets over the cushion difficulty very cleverly. As will be seen in the annexed drawing (fig. 33), the height can be regulated at will, and a *firm* rest on the cushion can be made. For some reason or other this rest has never become popular, and the cross-shaped rest still holds the field.¹

That a perfect rest is still to be invented I firmly believe. A point that has never yet been met is, that the friction over

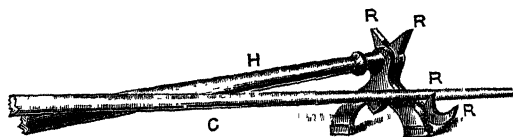


Fig. 33

the bridge of the human hand is of a quite different character to that over a brass or an ebony cross-piece, and so a cue on a rest seems to run away from a player.

CHALK

Chalk is worth attending to carefully. The most familiar kinds are the square blocks done up in green paper and the cylindrical pieces in cardboard cases. These last are turned

¹ An excellent cushion rest, capable of being used as an ordinary rest, is that known as the Peall Cushion Rest, which possesses the advantages of simplicity and ease of handling.

straight out of a solid block, and are, therefore, not free from grit and other impurities, the more gritty they are the more destructive are they to the cue-tips. The square blocks are sawn from more carefully selected chalk, and are for that reason to be preferred to the cylindrical pieces. They should be dry and powdery, for a greasy chalk is not to be depended on, and it will soon make the cue-tip shiny. In fact, the great secret of chalk is to have it *dry*.

Attempts have been made from time to time to grind down the chalk to powder and again consolidate it, but, as foreign substances must be introduced in order to make the powder stick together and become hard enough to withstand the friction of cue-tips, the result has usually been rather a greasy mixture.

There can be little doubt that if our chemists were to go into the matter seriously they would soon give us a smooth and yet biting 'chalk.'

A French firm have brought out some greenish-blue 'chalk,' called St. Martin chalk, which reminds one of the old green Thurston chalk one used to see thirty years ago. This new preparation seems to hold the ball very well, and does not make such a mess of the table as the old white; it is not poisonous; but—there is always a but—it is very expensive.

MARKING BOARD

A good marking-board is essential to the comfort of the players, and the ordinary pattern, as shown in fig 34, leaves little to be desired. Long games, however, of 400 and 500 up are not uncommon in private rooms in these days, and it would be a slight improvement if some means of scoring *hundreds* were introduced. I should think two slides similar to the pool slides, with 1, 2, 3, 4, 5, 6, 7, 8, 9 underneath, placed above or below each scoring-roller, would meet the case (fig. 35).

There is another pattern still fairly common which is always a nuisance, for sooner or later a mistake is sure to be made as

to the twenties (fig. 36). One or other of the players will forget to move on the twenty marker when he takes the other back to

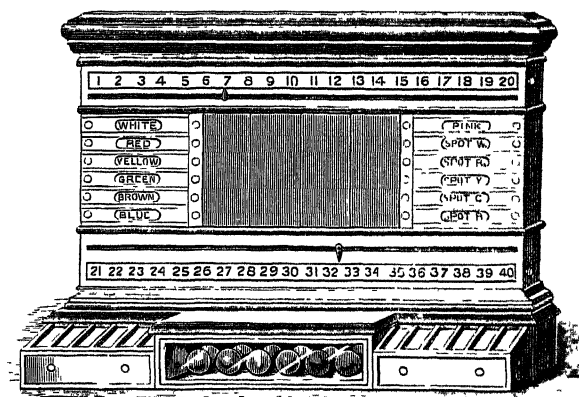


Fig. 34

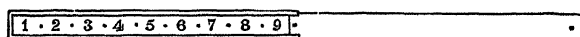


Fig. 35

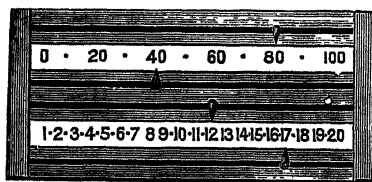


Fig. 36

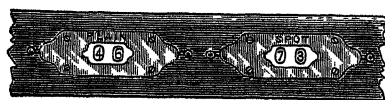
*Bottom Cushion*

Fig. 37

zero; more advanced arithmetic is involved; and another objection is that a separate board is required for pool.

Another kind of marker is a nickel-plated one let into the woodwork of the cushions, and worked by pressing a button (fig. 37). Two are placed side by side, one for each player. A further

variety of the same kind is a hand marker, which is useful in a country house.

POOL BASKET

If you should happen to possess a good set of pool balls, you should get a set of dummy balls, made in box-wood or inferior ivory, to shake up in the basket, for the violent shocks that real balls receive in the basket at the hands of an energetic marker are a fruitful source of cracking and faulty running.

THE HALF-BALL ANGLE

A piece of wood of about the thickness of half a ball (say $\frac{1}{32}$ in), as shown in fig. 38, is to be bought, and will be found

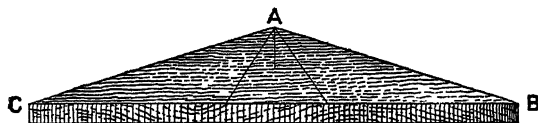


Fig. 38

exceedingly useful to beginners. The idea of this invention is that by its means the angle by which a ball (fairly struck in the middle without side, No 1 strength) is deflected from its course by colliding a half-ball with another is accurately shown (fig 39).

Let A be the striker's ball, and let it be required to hit the ball B exactly half-ball. Clearly the line of progression of ball A will be along the line A D. At D it is deflected in the direction of the arrow F; and the angle between F D and E D, the original course of the ball, is the amount of deflection due to collision. This will be found to amount to 33° approximately.

Suppose, then, it is required to find the proper place to spot a ball, so as to go into a pocket half-ball off another (fig. 40).

Let o be the object ball, p a pocket. It is required to spot a player's ball somewhere near the line A B to go into the pocket off o. Place the angle A of the instrument against the ball o in such fashion that the side A D points for the centre of the

pocket. Then a ball with its centre upon the line $A E$ produced will, if it strikes the ball O half-ball, proceed towards the centre of the pocket.

The course of the player's ball will not be *along* $A D$, but

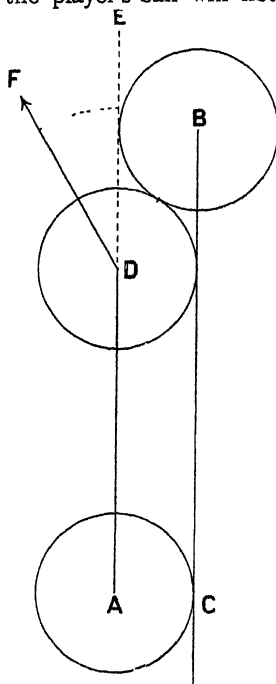
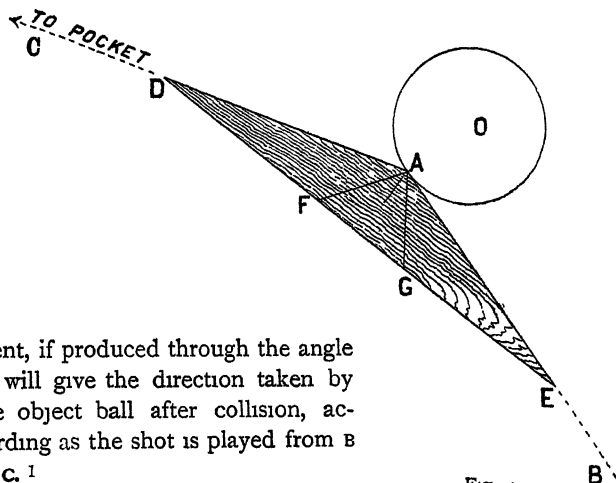


Fig. 39

converging upon it from a point half a diameter distant from the ball O . Hence the angle of deviation as shown by the instrument is made slightly greater than that described by the ball, that of the instrument being about 35° , the real angle being about 33° .

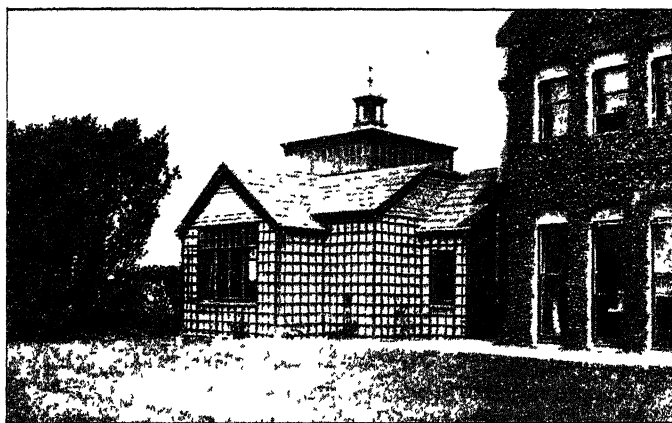
Of course it cannot be mathematically correct at all distances, but it is near enough for practical purposes, and will help to train the eye to estimate half-ball angles.

The two lines marked upon the upper surface of the instru-



ment, if produced through the angle A, will give the direction taken by the object ball after collision, according as the shot is played from B or C.¹

Fig. 40



An Outside Billiard-room

¹ A better and more ingenious arrangement was invented by the late Joseph Bennett and called a *mensurator*. It could be adjusted to the angles for six different strengths of stroke — W B

CHAPTER III

ELEMENTARY : ONE-BALL PRACTICE

BEFORE commencing the manual of instruction in billiards, it is desirable to address a few words of advice to the beginner, and to explain some of the technical terms used. Others will be described in future chapters.

It is clear that before playing, the room must be entered ; and hence we commence with the mode of doing so. The operation seems so simple as to be too trivial for notice ; but, far from that, there is nothing short of actual play which shows more clearly the difference between a well-trained, well-mannered player and a novice or a careless and discourteous visitor. The door of a room should always be approached quietly, for the table may be occupied ; if it be so, *wait for the stroke*. When the stroke is played, open the door quietly, and walk straight to a seat. Avoid everything likely to distract the attention of the players from their game, and recollect that for the time being the room, its light, fire, and so forth, belong to them. Persons who smoke should wait for the stroke before scratching a match, and when extinguishing it should not do so by waving it before the eyes of the player. In short, ordinary courtesy is nowhere more important than in the billiard-room, for if men can play, their nerve and attention are strained ; interruption may prove fatal to the chance of one of them, and is sure to be resented, even though it may pass without remark.

In the previous chapter the terms employed respecting the



PRELIMINARIES

table and implements have been detailed ; these are now supplemented by others in common use during play.

Angled.—A ball is angled in respect to that part of the table to which it cannot be directly played.

Ball.—In billiards three balls are used, white, spot-white, and red. The player's or cue-ball will usually, in this volume, be called ball 1 ; the object ball, or ball played on, ball 2 ; and the third ball, ball 3. A line-ball is one resting on the baulk-line.

Baulk.—The space between the baulk-line and the bottom cushion. A ball within that space is in *baulk* ; when a white and red ball are in baulk and the other is off the table, the situation is termed a *double-baulk*.

Break.—The term is applied to a continuous score, or one made in unbroken succession.

To *break the balls* is to play as at the opening of a game.

Bridge.—The player's hand which rests on the table, and which serves as a guide to the cue, is so called.

Coup.—If a player fails to hit another ball, and by the same stroke causes his own ball to enter a pocket, he is said to have *run a coup*.

Cover.—A ball is said to be *covered* when it cannot be directly hit by player's ball because of the interposition of another ball ; in other words, when ball 1 cannot directly strike ball 2 because of ball 3, ball 2 is said to be *covered* by ball 3.

Foul.—A stroke made in contravention of the rules.

In hand.—When a player's ball is off the table it is termed *in hand*.

Hazard.—When a player with his ball pockets another ball he is said to make a *winning hazard* ; when he pockets his own ball after contact with another ball he makes a *losing hazard*.

Kiss.—Ball 2 is said to kiss when it comes a second time in contact with ball 1. The kiss is generally made off a cushion.

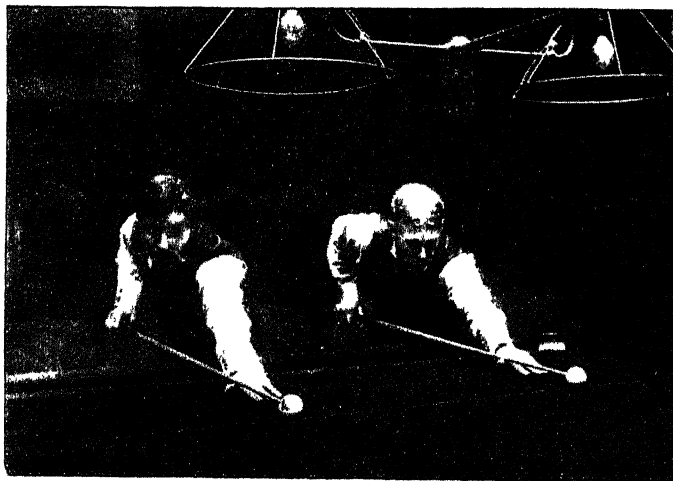
This term is used with much laxity in the language of billiards, and includes what the French call *coups durs*, when ball 2 is touching a cushion, and *rencontres*, when balls 1 and 3

meet, the former having been set in motion by the cue and the latter by the impact of ball 2. When ball 2 has an unforeseen collision with ball 3, and thereby prevents a cannon, the failure is attributed to robbery by a *kiss*.

Miss-cue — Failure in the delivery of the cue on player's ball ; usually a slip from want of chalk or from defective striking.

Plant — When two balls touch and an imaginary line through their centres if prolonged terminates in the centre of a pocket, a *dead plant* is said to be on. If the ball further from the pocket be played on and struck almost anywhere, the ball nearer the pocket will inevitably be *planted* or go into the pocket. The *plant* is still possible when the line through the centres falls slightly to the right or left of the pocket.

Strength is the measure of force used to make a stroke, which is said to be soft or hard according to the *strength*.

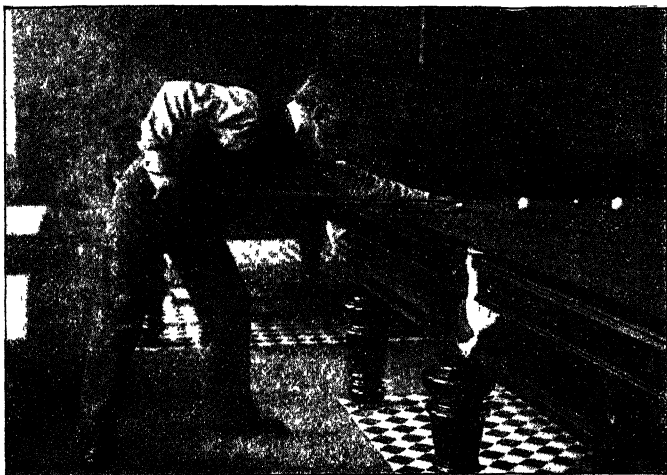


Stringing

To *string* is to play from baulk to the top cushion so as to leave player's ball near the baulk-line or bottom cushion as may be selected. Before a match the players *string* simul-

taneously for choice of balls, and for the option of commencing the game.

After these preliminaries, the first matter of importance is that players should try to acquire an easy attitude. For its attainment precise rules like those for military drill cannot be given, because what are suitable for a tall spare man are wholly impossible to one who is short and stout.



An Easy Attitude

Therefore, advice must be general. The learner should go to a proficient of about his own make, whose style is admitted to be good, and be shown the best attitudes to reach a ball placed in various parts of the table, first from baulk, and afterwards from other and more cramped positions. If this be neglected, he is apt to contract faulty habits, which become more difficult to abandon the longer they have been entertained.

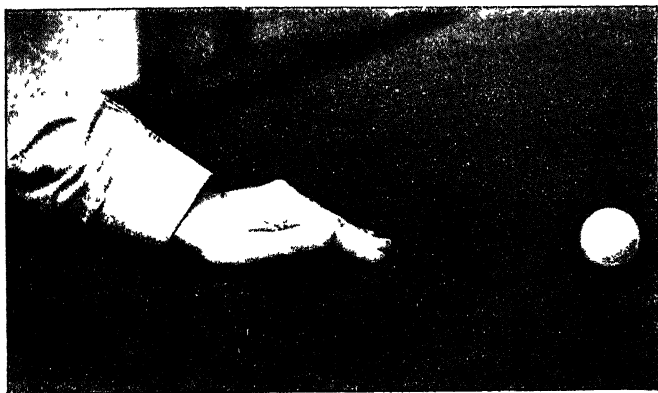
In playing an ordinary stroke from baulk, a right-handed player should stand so that his body shall be on the left of the line of stroke, which is, in fact, the axis of the cue, the left foot should be advanced so that the toe shall be just below the

cushion, and pointing in the direction of the stroke ; the right foot retired more or less according to the stature of the player, and pointing at a right angle to the left foot. The right leg should be straight, the left more or less bent , the right hand should hold the cue near the butt, the elbow being nearly vertically above the hand, whilst the left hand should be extended in the line of stroke, so that the cue resting between the thumb and forefinger shall lie as nearly as possible horizontal. For a left-handed player the same advice holds good, save that throughout the word 'left' should be substituted for 'right.' For all players that attitude is best which is least stiff or constrained, and which combines the greatest measure of steadiness with freedom of action

The formation of a good bridge is essential to accurate play. Its object is to supply a rest for the cue at the height of the stroke to be delivered, and this ordinarily is the centre of the ball. Just as for the right hand, which puts the cue in motion, freedom is the chief necessity, so for the left, which acts as the guide and support, stability is of the first importance. That is best attained by bringing some weight to bear on the base of the thumb, and consequently by somewhat raising the knuckle-joint of the little finger. As hands vary in shape and size, no precise rule or measurements for the formation of a bridge can be laid down. A competent instructor will show how a bridge is made, and an intelligent learner will soon acquire the habit of making one which suits himself. The general mode is to place the hand flat on the table, elevate the knuckles about two inches or rather more, keeping the fingers rigid or unbent, so as to form nearly a right angle with the palm, raise the thumb, and press it moderately just above the joint against the forefinger, forming with it the rest or point of support of the cue, spread the fingers slightly so as to widen the foundation, so to speak, of the bridge and increase its stability, and by means of raising or lowering the little finger, bring the point of support so that the cue shall lie level with the point of the ball to be struck. These directions, perhaps, seem complicated ; but if the pre-

scribed movements are gone through once or twice before the learner by a competent person, all difficulty will disappear. The final movement whereby the height of delivery of the cue is regulated, is one of much importance, which we do not recollect to have seen mentioned in previous manuals

Exceptional rests or bridges have to be made to meet exceptional cases. Thus, when a ball is under a cushion, the tips of the fingers form the sole support, in other instances



The Bridge

the thumb is lowered and the forefinger bent so as to form a ring or hook through which the cue is passed. The French call this *bouclée*.¹ There are, in fact, many variations which it would be a waste of time and space to describe; some, indeed, have to be invented as the necessity for their use may arise.

The attitude and method of making a bridge having been acquired, the next point is to deliver the cue freely and horizontally. It should be lightly held near the butt and repose on the bridge, so that ordinarily from 9 to 12 inches project towards the ball. Considerable differences in the distances between the bridge and the ball occur during the variations in a game, but it is generally

¹ See illustration, p 137

true that the nearer they are the greater the accuracy with which the ball can be struck, and the further (within reasonable limits) they are apart the greater the power. What is gained in power is, to some extent, lost in accuracy

A little practice with the cue without a ball is useful to familiarise a beginner with the necessary action, that is the horizontal backward and forward motion, a slow withdrawal followed by a faster forward stroke. When this is attained practice with one ball should be commenced. It is of the highest importance, for by means of it alone can the rare qualification of a true delivery of cue be acquired. And this applies not merely to beginners, but to persons who are out of practice, for the commonest of all faults, and the secret of most failures to score, is that the player's ball is not truly struck. It may seem strange, but it is nevertheless true, that many persons who play what is held to be a fair game cannot truly strike a ball.

Let us then suppose a ball placed on the spot on the centre of the baulk circle, and that the player has assumed a suitable attitude in order to play up the table over the billiard spot. The tip of his cue should be about half an inch from the centre of the ball, and the axis of the cue should be as nearly as possible parallel with the surface of the table, and in the same vertical plane as its central line, because the path travelled by a ball truly struck in the centre is, till after impact with a cushion or with another ball, invariably a prolongation of the axis of the cue. Having aimed carefully over the spot, he should draw the cue slowly back three or four inches and then bring it forward, giving the ball a smart tap, in contradistinction to a push, in the centre, the strength of the stroke to be such that the ball shall return into baulk. If ball, table, and stroke are true, the path travelled will lie precisely over all the spots in the central line, and after impact with the top cushion the ball will return to baulk by the same route. Herein is manifest the excellence of this stroke for practice; because if the ball be struck either right or left of the centre, it will return to the right or left of the central longitudinal line of the table. The nearer

the return path is to that line the better the stroke, and the further it is from it the worse, so that an infallible measure of the truth or accuracy of hitting the ball is supplied by the result. It is impossible to overstate the value of this test, and by the time that a person can play this stroke up and down the table with varying strength and fair accuracy he has gone far towards mastering the first step at billiards. To secure striking the ball in the centre, as soon as aim is taken the player should fix his eyes on the ball and try to the best of his ability to deliver the cue truly and as horizontally as possible so that the tip does not see-saw up and down. The tap on the centre of the ball should be sharp and clean, the cue being permitted to follow it for a few inches, less when the stroke is soft, and more when it is hard.

It may probably appear in course of practice that the striker has a tendency to hit the ball either right or left of the centre, he should correct this by striking on what seems to him slightly the other side. Thus, if he, whilst aiming truly, brings the ball back to baulk invariably to the right of the central line, he should strike at what seems to him slightly to the *left* of its centre, if by doing so he brings the ball back over the spots, he may be assured that he has found the true centre of the ball, and by continuing the practice his eye will become educated, and the tendency to strike on the side will diminish or disappear. The stroke should be repeated till it is mastered at every possible strength, or, say, hard enough to cause the ball to travel four lengths of the table. When confidence in the power to strike a ball in the centre has been acquired, further practice should be made. Place the ball on one corner spot of the *D*, play to the centre of the top cushion immediately behind the spot, and the ball should return over the spot on the other corner. This, too, is very useful practice, it familiarises the eye with the general truth of the axiom that the angle of reflexion is equal to the angle of incidence, and variations from this stroke (which need not be defined here, as any person of ordinary intelligence can

multiply them indefinitely) will prove of constant use when it is necessary to play at a ball protected by baulk

For the sake of clearness, one other example may be cited.

Place the ball on the right corner of the **D**, measure a point on the top cushion $8\frac{1}{4}$ in. from its centre towards the left top pocket, and there set up a mark—a piece of chalk laid on the cushion will do. If the ball be played correctly on to the place thus indicated, it will return to the left bottom pocket. Easier strokes of the same kind can be made across the table into any pocket, and confidence, which is an important factor in the game, is thus acquired. Before leaving the subject of these exercise strokes, it is desirable to emphasise the value to a beginner of acquiring a good style and of cultivating it incessantly till it becomes natural, and then he may, without harm, indulge occasionally in a game, if he begins with games he is certain to contract bad habits, which, becoming more confirmed the longer he plays, must result in increasing his difficulties and may never be wholly cured.

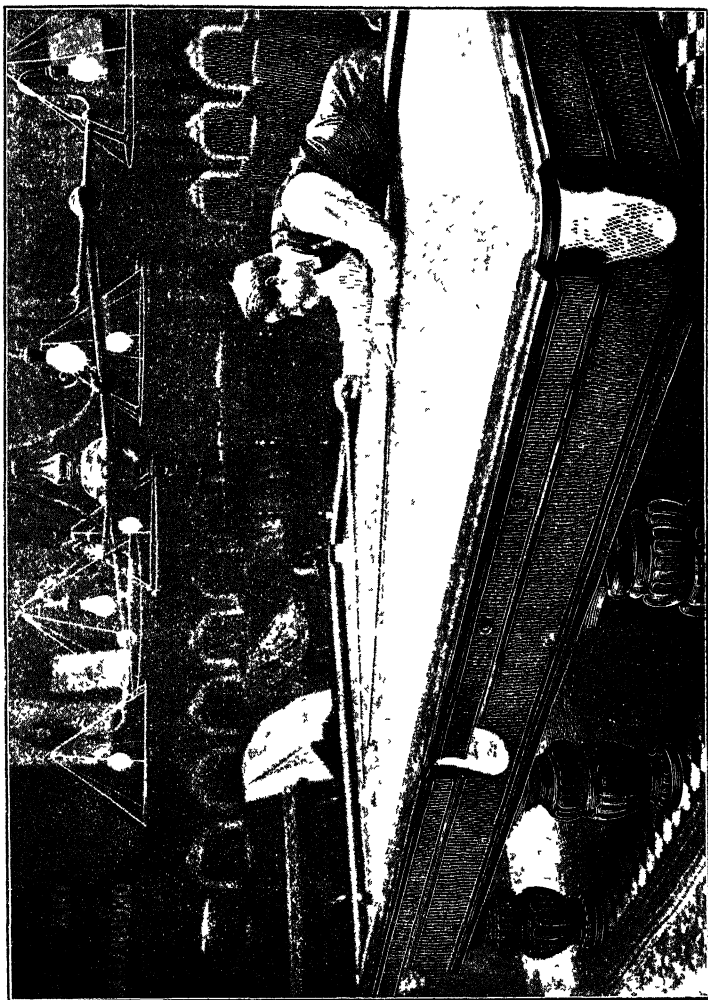
As regards indicating the strength to be used in playing various strokes, the best plan is to refer to the positions of the balls when they are at rest after a stroke, but as some rough guide may save beginners many trials, it has been usual to indicate by means of numbers the approximate strength to be used. Thus Strength No. 1 is a slow, or soft stroke, No. 2 harder, and so on till No. 5 or No. 6 may be taken as the greatest possible strength. Various measures have been adopted by different authorities, for our purposes in this book it is proposed to classify them thus:

Strength 1. From softest possible to that required for one length of the table

Strength 2. From one length to two lengths of the table.

Strength 3. From two lengths to three lengths of the table

Strength 4. From three lengths to four lengths of the table, beyond which it is probably unnecessary to go. These



Using the Rest

definitions may be further subdivided as desired · thus a very gentle stroke would be called a very slow or soft No. 1 ; a less slow one, medium No. 1 ; a stroke which required the strength to take a ball the length of the table, a full or free No. 1, which it is obvious reaches No 2 strength ; where No 1 ends No. 2 begins, and so on

It is clear that the practice prescribed will familiarise the beginner with the various strengths, a matter which he will find greatly to his advantage

When the ball cannot be comfortably reached by hand an artificial bridge, known as the rest, is employed A short man requires it frequently, a tall man less often, but both should practise with it assiduously. A competent person will show a beginner the proper way of using it in a very short time The handle of the rest should be nearly in the same line as the cue, only so far out of it as to permit of free delivery , the cue should be lightly held between forefinger and thumb, knuckles up, the elbow being raised level with the butt. The hand which holds the rest should lie on the table

These are general rules, but they must on occasion be modified The practice already defined will serve for strokes with the rest if the ball be placed sufficiently far from the cushion The half-butt and long-butt should also be used Before leaving this subject it is well to say that to be obliged to use the rest, and, worse still, the half-butt and long-butt, is at any time a drawback. This can be reduced to a minimum by learning to play with either hand , a most useful accomplishment, by no means very difficult of attainment

The following memorandum by Mr Dudley D. Pontifex, who besides being a billiard-player of very high class is an expert at many other games, on the great importance of cultivating an almost mechanical accuracy in delivering the cue, and on the methods which he has followed in order to attain this end, will be read by proficients as well as beginners with both interest and profit. In essentials it agrees with the recommendations already given, and where it may seem to

differ the variations are so small as not to require examination and explanation. Some interesting remarks on the styles of leading professional players will be found, and attention is justly directed to Roberts's admirable delivery of the cue, which is said to appear to be harder or stronger than it really is ; but one of the excellences of that great master's strokes is that they are habitually struck harder than is usual with other professionals, the necessary compensations are, however, applied, and though the ball starts with considerably greater initial velocity than is usual, yet it does not necessarily travel farther or effect more. A heavy drag stroke played the length of the table by Roberts will travel nearly twice as fast as one struck by any other man, yet the object ball will often be found not to be harder hit.

The feat of screwing back to baulk from the red ball on the billiard spot, direct and without trick, is so remarkable that readers cannot fail to be much interested in a well-authenticated instance of the stroke. Besides Mr. Pontifex, William Seymour, (marker in 1895 at the Queen's Club) was present at the time, and has seen the gentleman do the stroke on many other occasions.

MEMORANDUM

BY DUDLEY D PONTIFEX

There is one characteristic which distinguishes games such as billiards and golf, and sharply divides them from others like cricket and tennis. While in the latter the stroke has to be made on a moving ball, in the former the ball is stationary. Instructions as to the method of making a stroke consequently vary in value in the two classes of games. The tiro at cricket or tennis is told to play a particular ball in a particular way, but is met with difficulties when he attempts to carry out the advice. The cricketer knows that he ought to play back or forward according to the length of the ball, but alas! too frequently is unable to decide until too late what the length of some

particular ball is. At tennis it is much the same. The player knows well enough how the stroke should be made, but at the critical moment finds himself in such a position that it is utterly impossible to make a correct stroke. In these games the value of instructions is proportionable to the capacity of the player to adapt himself to the exigencies of the moment. It is quite different as regards billiards. Having once made up his mind as to the method to be adopted, there is absolutely nothing to prevent the player from carrying it into practical effect. He is not hurried for time. He is not called upon to make a sudden and, as it were, intuitive decision instantaneously. On the contrary, the table and balls are before him, and his opponent has to wait quietly until the turn is completed. Consequently the value of instructions, if there be any value in instructions, is relatively greatly enhanced in this class of game.

When one of our best professionals is playing, it is no uncommon thing to hear the remark made, 'What beautiful strength !' To my mind the excellence of a fine player's game lies not so much in his strength as in his accuracy. Given accuracy, strength will follow, at all events there is no reason why it should not. But strength without accuracy is useless, and even worse than useless. If a good player and a bad one meet, the latter usually has the better of the leaves. The reason is not difficult to discover, for the good player fails far more frequently from want of accuracy than from bad strength, and the balls are left fairly placed for his opponent. The bad player has little accuracy and less strength. He goes for his stroke, and chances position. After a score he leaves himself little, but if he fail he leaves little for his opponent. His play is characterised by a series of disjointed efforts.

But, although the good player fails more often from want of accuracy than from bad strength, he does not, unless the balls are very close together, try for exact strength. To use a well-understood phrase, he tries to get them there or thereabouts. Take a very fine player, and let him play from baulk with the

other two balls nicely placed in the middle of the table, and let him play two breaks with the balls so placed. It is almost certain that after the third stroke, probably the second, the breaks will branch out differently. The good player only tries to place the balls about where he means. If he be at all successful, he will have the choice of playing one of perhaps half a dozen different strokes. Not one of these half-dozen strokes is, it may be, difficult, and then he has to consider which will leave him the best break, and if there be three or more leaving an equally good game he takes the easiest. What is deserving of observation is that, whichever he selects, he usually makes the stroke and approximately carries out his idea.

It is this deadly accuracy which is so noticeable in the play of the best professionals. How have they obtained it? First and chiefly by years of constant and assiduous practice, secondly by a correct mechanical style. Nothing can take the place of the former. 'No amount of teaching will be the equivalent of strong individual effort extended over a length of time. The player who really excels at billiards must have given a large amount of time to it. He who plays a wonderful game, and yet hardly ever touches a cue, exists only in the imagination of the incompetent novelist. But, although nothing can compensate for hard practice, something may be done for the beginner by teaching him how to obtain a correct style. To avoid errors is the surest and quickest way to real progress, and to thoroughly grasp the idea of a true mechanical style is the most important lesson in billiards. There is no one style that can be said to be the only correct and proper one. If the best half-dozen players be watched, it will be seen that they all differ in various ways from one another. The position of their heads, and the way in which they hold the cue, are often entirely different. One thing, however, may be noted, that however much they differ from one another, they are true to themselves. Each man keeps rigidly to his own style. His position and his manner of delivering the stroke are constant so far as circumstances permit, and this is the lesson which the

amateur may properly take to heart. Billiards is more of a mechanical game than anything else, and, because the mechanical part of it is so important, nothing can take the place of continual practice on right lines. And even that which may have been a defective style originally may, by becoming habitual, lose half its injuriousness. The beginner, however, wants to avoid defects so that he may have nothing subsequently to unlearn, and he wants to know the nearest road to the best game of which he is capable. When he has once got a clear idea of what a correct style is, he is next door to getting the thing itself. And it is worth some little trouble to get. For not only will his general progress at the game be more rapid, but he will find the utility of it at a critical moment. Some pernicious trick or mannerism may not be particularly injurious on ordinary occasions, but when the stress of a match comes it is apt to be fatal. It is then that the man with an easy and correct style finds half his work done for him, as it were.

It is by no means an uncommon thing to see what may be called the pump-handle style, where the cue, instead of moving horizontally or nearly so, is at the commencement of the stroke lifted high at the butt, and then brought forward with a circular sweep. This makes it a matter of no little skill in itself to hit the ball at all correctly, and yet we see players who apparently are not satisfied with the ordinary difficulties of billiards, but must add a quite superfluous one to every stroke.

Most of these eccentric players must be to some extent aware of their eccentricities, and a very little reflection would show that they are quite unnecessary and may be harmful.

Apart from any theoretical consideration of the matter, a casual observation of really good players proves that they do not indulge in these atrocities. In fact, our best players are, almost without exception, easy, graceful players, and distinctly the best break I ever saw North play was at the same time the quickest and least demonstrative of any I have seen made by that player. The play of John Roberts is

almost above criticism, and his style is at once the delight and despair of all Diggle, Dawson, and Richards, more especially the last, are charming players to watch. They who can remember Cook at his best will recall with delight a style that was in the opinion of many unrivalled. An impeturbable temper that nothing appeared to ruffle, a nerve that never seemed to fail, a touch always firm and crisp, yet often using a strength so delicate that he seemed to require instruments more accurate than the best manufacturers could supply—these were some of the features of a game that ever had a great fascination for the spectator.

A few words may not be out of place on the benefit of private practice, *i.e.* practice by oneself. I believe from a tolerably wide experience that they are exceptional, very exceptional, who can keep on improving without having had, at some time or other, a good deal of private practice. How many men there are who play their two or three hours every day, and yet at the end of fifteen years are little, if any, better! It is because their energies are being entirely absorbed by the immediate contest. If they have a fault in style, they have no time to correct it. They cannot make up their minds to court present defeat for a future gain. They play the same old game with the same bad result year in and year out. The least innovation on their stereotyped game will probably result in failure, and perhaps defeat, and is therefore rejected. After a time they come to accept their game as the best of which they are capable, and when they see really good play they admire it, but never appear to dream of taking a hint from it for their own improvement.

A short time given to private practice would do much for such a one. Here there is no opponent to distract, no dread of consequences. The greatest novelty, even to the playing of a losing hazard at dead slow strength the length of the table, may be attempted fearlessly. But this is not all. Not only may every kind of stroke be attempted without any attaching penalty, but if there be a fault of which the player is

conscious he may now correct it. His attention is now concentrated upon the one point, and it is wonderful how soon that which has become habitual may be changed by steady determined suppression. Billiards again, at least to play one's best game, is very much a question of confidence, and confidence is born of familiarity. He who has played a particular stroke in a particular way a hundred times successfully in private practice, not only feels that he can do that stroke in that way in a match, but that it is his best chance of doing the stroke at all. He is in a way compelled into the better class of game.

Probably no amateur is in the least likely to go through the years of continuous labour that the best professionals have given to the game. But in many instances he may, by giving some consideration to the matter and taking a little trouble, acquire a greater degree of accuracy than has hitherto been associated with his game. Accuracy in play means accuracy in striking, and the player has to aim at hitting ball after ball with the precision of a machine. Of course one seldom or never gets two strokes running exactly alike, but the various movements of the body which precede and accompany the delivery of the stroke may be and should be alike. This uniformity of style is the groundwork of accuracy, and it is by a recognition of the various movements and a careful observance of them that the player may obtain a correct mechanical style. He should once for all definitely decide what is the best style for him to adopt, and, having decided, should strictly observe it with unfailing regularity. It is absolutely fatal to keep chopping and changing in the endeavour to copy a better player. In all probability that which is copied has nothing to do with the excellence of the play. It is perhaps some little trick which is peculiar to the man, the result of his build or of his early billiard education. Most of us have known some friend who, after seeing John Roberts give one of his wonderful exhibitions of skill, has attempted to imitate his rapidity of play. The last state of that person

is worse than his first. We cannot all play our best in the same way. Some men are naturally quick players, others lose whatever merit they may have in the attempt to hurry through their stroke. Usually, the better practice a man is in the quicker he plays, but, whether he play fast or slow, he should always play naturally and at the same pace. If he be playing badly, conscious hurrying over or dwelling on the stroke will not mend matters. The reason for the bad play must be sought elsewhere. Usually the internal machinery has in some way gone wrong. But the last thing a man cares to admit is any failing in himself. It is far more pleasant to attribute his ill success to something else. Still, if his style be not radically wrong, and if during one of these seasons of depression he attempts to vary it, his game will surely suffer when the causes which led to his temporary deterioration have passed away.

If I venture to give some advice, it is with a double motive, first, to illustrate my meaning how, by a careful attention to details, uniformity of style may be obtained, and, second, in the hope that it may in some respects be found useful by beginners. But before doing so I should like to say a few words as to what I conceive to be the real utility of advice. What is too often the case is this. The beginner tries to recollect before every stroke all he has learnt, and laboriously endeavours to reduce each and every rule into practice at the same time. Some of these rules may be the exact opposite of his previous method. The consequence is that this attempt at wholesale assimilation causes the player to look like a trussed-up fowl, uncomfortable to himself and unnatural to others. He should remember that that which is ungainly in style is usually wrong, always superfluous.

Rules may be good enough in themselves, but if there be a grave difference between them and our former method there will always be a difficulty about their immediate application. There is no authority for the opinion that the world was made in a day, and even at games time must be allowed to bring

about the desired result Too great insistence upon the observance of several rules at the same time distresses and discourages the player. But if he will get, more especially in the intervals of play, a clear mental recognition of the rules which he believes to be specially applicable to himself, he will find that they will presently begin to work out in practice This is not only a more pleasant but a better way. Without any conscious effort, the player finds that the mind is beginning to direct and control the bodily movements The result thus arrives in an apparently natural way, and when it so comes it comes to stay. That this is the best use to which advice can be put is an opinion derived from an experience more or less intimate with a variety of games

No exact formula can be laid down with regard to position. This is precisely one of those cases in which some latitude must be allowed for a man's make and shape Two points, however, should be borne in mind To state them in their natural order they are, first, that the player should always, so far as circumstances permit, assume the same relative position as between himself, his own ball, and the line of direction. A useful general rule is the following. When the player takes his position opposite his own ball with his left leg advanced as is the usual manner, the line of direction if prolonged backwards through the centre of his ball would pass through the centre of his body. As he settles to his stroke, the body naturally sways a little to the left, leaving the right arm free to swing in the proper direction Secondly, the position should be a firm one The advantage of this will be more particularly felt in any game in which nerves play a part. If there be any tendency to unsteadiness in the player's position, it will then be emphasised The body should be kept as motionless as possible, the feet being firmly placed and the right leg straight

It is not easy to recognise the true natural angle¹ under all

¹ Often called the half-ball angle, both definitions being very inaccurate, but they are in common use, and generally understood.

its different phases, and the frequent failure of even the best players at long losing hazards shows this. Constant practice is the only teacher, and the plan of having for private play two strips of wood joined together at the proper angle—and which was, I believe, first introduced by Joseph Bennett—is very useful. The angle is more sharply defined, and therefore easier of recognition, if taken through some fixed point, and this point should be the centre of the player's ball. The angle should be taken to the centre of the pocket.

It is almost a rarity to find a really good baulk-line player, and in some cases it is quite the weakest point in a man's game. That this should be so seems strange, seeing that the player has such a wide range within which to place his own ball. It is, I think, often this very option of choice of position that causes the stroke to be missed. The player places his ball, perhaps, quite correctly for the first long loser he has, but misses it through hitting his own ball falsely. He does not attribute his failure to its proper cause, but thinks he has placed his own ball wrongly. Next time he puts it a little wider or narrower as the case may be, and if he happen to put on by accident the proper amount of side and does the stroke, he is almost worse off than ever, for the first time he does hit his own ball truly he comes to grief. By this time he has got an entirely wrong estimate of what the true natural angle is, and it may be a matter of several days before he can do the stroke with any certainty. Another point may be remarked. If the player use only his left eye in play, he should judge the angle only with his left eye; if he use both eyes, then judge with both eyes; but if he uses the right eye to take the angle and the left eye to play, when he settles to his stroke the angle will often appear wrong, and he will become confused as to what the correct natural angle really is. This probably arises from the fact that with most people the focus of the two eyes is not identical.

Whether the cue should be held only by the fingers, or in the hollow of the hand, may be matter of opinion, but there is

no doubt it should be held lightly, not gripped. Any rigidity of the muscles tends to impair the easy pendulum swing so essential to accurate play. Some people seem to think it necessary to grip the cue when making a screw. The point is easily susceptible of practical demonstration if they will only condescend to hit the ball in the proper place.

With many players, again, the position of the left hand appears to be a matter of supreme indifference. They place it on the table anyhow, and almost without taking a glance at the stroke. Now it is all very well to say 'Look at John Roberts. He doesn't worry about these things,' but we are not, most of us at least, of the calibre of John Roberts. His easy and graceful style is deceptive. If anyone will take the trouble to contrast the face of the man with his manner of play, it will be apparent how thoroughly concentrated is his mind on the game. He is the consummate artist who conceals the difficulty of the stroke under the ease of its execution. For most players, and all beginners, it is advisable to pay some little attention to the position of the left hand. Obviously it is of importance. If it has to be moved, however slightly, after the player has settled to his stroke, the result will be a loss of accuracy. It should be advanced with care, by which I do not mean with wearisome laboriousness, to the player's ball, the eye being steadily kept on the line of direction, or, better still, on the exact spot on the object ball it is desired to hit.

The cue from tip to butt should be in one straight line with the line of direction. It may be thought that this is always the case, but a close observation will show that very frequently the cue along its length is by no means in a straight line with the point aimed at. I have found it most useful to bear this rule in mind, especially when beginning practice after a long absence from the billiard-table.

The player should not hurry up from the table after delivering his stroke. The fault indicated may easily become a habit, and a very bad one. It may be often observed

among the more impatient class of players. It may cause the body to move at the very moment when it is most essential it should be quite steady, viz. at the moment of the cue's contact with the ball

A few more hints may be useful to some. Much of billiards is played before settling to the stroke. This may at first sight appear an absurd statement, but it contains an important truth. If the player have a clearly defined idea not only of what stroke he is going for, but how it is to be made, much of the difficulty is already overcome; but if he go down to his stroke, and then have an elaborate consultation with himself as to what is to be done, the process is not only harassing to his opponent but detrimental to himself. Once having decided on the stroke, he should go for it unhesitatingly, and as though no other stroke were possible. To play one game, at the same time having a lingering partiality for another, is not usually attended with success.

The height of the player and the length of his arms will to a considerable extent determine where he should hold the cue so that he may combine sufficient power with the greatest attainable accuracy. It must not, therefore, be held too far back. This may cause a slight loss of power, but that is of very small importance. The bad play so often seen in amateur billiards is not usually to be attributed to any want of power of execution.

I have never known a professional do a stroke which most amateurs could not copy, though I have known one instance of an amateur being able to do that which probably no professional living could do. The feat deserves to be recorded. The gentleman was an undergraduate at Cambridge, and it was said that he could from baulk screw back off the red on the spot into baulk again. One day I asked him to do it for my edification, and at the third attempt he succeeded. The balls used were two of the usual set with which we ordinarily played. He used his own cue, which was one of the usual pattern of English cues. The white came straight back with-

out touching a cushion. There are many persons besides myself who have seen him do it, but I have never heard an authenticated case of any other person who could perform the feat.

On the face of it, it seems wrong that a man of six feet and one of five feet six inches should hold cues of the same length in the same place, and a slight consideration of the nature of a proper stroke will show very good reasons for not holding the cue too long. The stroke itself should be made by, as nearly as may be, a horizontal motion of the cue. Any depression of the cue tip has a tendency to make the ball take a slight curve. There are strokes when it is desirable to sharply raise the butt for the very purpose of making one's own ball describe a curve before contact with the object ball, and such strokes are sometimes very useful when the pocket is a narrow one. But as a general rule the movement of the cue should be as nearly horizontal as circumstances allow. Now, if the cue be held too long for thorough control over it, as the player's hand goes back before delivering the stroke it will take an upward direction, and one of two things must take place when the stroke is made. If, during the forward movement, the cue work in a plane, it will be depressed at the moment of contact with the ball, but if at the moment of contact it be horizontal, or nearly so, it will have described a slightly circular movement. This is one of the things to be avoided, for the cue should work like a piston-rod.

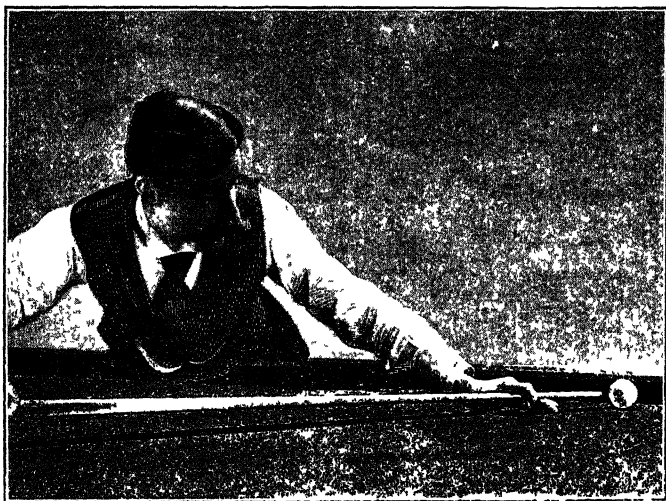
The bridge should be a short bridge rather than a long one. What is meant by a short bridge is a short distance between the bridge itself and the player's ball. Too long a bridge must necessarily diminish accuracy of hitting. The stroke itself should come from the arm alone, and as much as possible from the elbow, the movement of the shoulder being kept within the narrowest limits. However delicate, it should be a clean, crisp blow, avoiding the least suspicion of a push. In this respect it is exceedingly instructive to watch John Roberts play. He appears to strike the ball so hard, even in his close game, that

one is at a loss to understand how it stops so quickly—the fact being that the ball is struck so firmly, and so clean, as to give the appearance of a harder stroke than in reality it is. It is a very unusual thing to see an amateur strike his ball crisply when using delicate strengths. Not only should the angle be judged, but aim should be taken through the centre of the player's ball. This applies to every stroke not less than a half ball. For all ordinary strokes—excepting, of course, screws, &c—the ball should be struck, whether with side or without, exactly half-way up. The ball when so struck runs truer.

One last word of advice. It is—simplify your game. If you can take your choice of two games, one which looks promising but with possible complications, the other simple and obvious, choose the latter. Some two or three years ago Dawson was for this reason a most instructive player for the amateur. His game was so simple that he never appeared to be in a difficulty. He has somewhat changed its character since, but I question if he has ever played better than he did then. In this respect John Roberts is the last player the amateur should attempt to copy. His game is full of complications, but he gets rid of them with an ease and a celerity that fairly astonish the onlookers. He is out of a difficulty almost before one has recognised that there is one. Sometimes he seems to fairly revel in them, and deliberately to make them for the pleasure of getting out of them. It is certainly wonderfully attractive, but the percentage of men who could play such a game with success would be infinitesimal.

If this memorandum appear too didactic, I can only apologise to my readers. It must necessarily assume that character to some extent. But, in truth, the advice is not meant for good players. It may be that there are some fine players who have never consciously observed any rules, but have naturally adopted a correct style. They are facile players, but they know not the pleasure which comes from attacking and overcoming difficulties. There are others, quite as fond of the

game, who find the road to even partial success a somewhat stony one. These hints, or some of them, may perhaps be of use to such. One thing is certain. Not even the most perfect rules or the most undeniable instructions can of themselves make a good player. They cannot take the place of hard work. All they can do is to help the beginner over some of the difficulties others have met with, and so save him time.



The Bridge (*boulle*)

CHAPTER IV

MOTION, IMPACT, AND DIVISION OF BALLS :

TWO-BALL PRACTICE

THE practice prescribed in the preceding chapter had for its chief object the attainment of certainty in striking ball 1 truly in the centre ; we now proceed to study some of the elementary facts concerning the impact of one ball with another.

In the first place, the conditions of impact should be recognised, and what is termed the division of balls must be explained.

Now, for practical purposes the cloth and bed of the table are level, and the balls are of the same size, hence when they touch one another the point of contact is invariably on the line of their greatest horizontal circumference, which, as all know, is precisely at half their height. It will hereafter be shown that ball 1 may be caused to leap, and so strike ball 2 above this, but for present purposes, when a plain stroke alone is being considered, it may be accepted as a fact that the point of impact is always at half the ball's height. That fixes the location of impact vertically, but horizontally it is evident that there is considerable latitude. Ball 1 may hit ball 2 either precisely full, when the centre of one is played on the centre of the other, or it may strike either to the right or left of the centre of ball 2, the limit on either side being the finest possible touch. The accompanying figure will show what is meant. When ball 1 hits ball 2 full, at the moment of impact it occupies the position 1'', and the part of 2 which can be struck by a ball situated at 1 is from P'' to P, if ball 1



OPENING THE GAME

occupies the position $1'$, then the part of 2 which may be touched is restricted to that marked $P'' P'$, but should ball 1 be placed at $1''$, then the only point on 2 it can touch is P'' . Therefore the nearer 1 is to 2 the less of the latter can be struck, and the further away the more.

As regards the division of balls, for the English game at any rate, the simpler it is the better. The larger balls on a smaller table, as used in the French game, admit of more minute subdivision than do our smaller balls, which may be, and often are, further from the player's eye. To attempt a division which the eye cannot easily appreciate is a mistake. For purposes of play both balls 1 and 2 must be divided, and although at this early stage of the manual we are not concerned with the division of ball 1 (for all practice at present is confined to centre strokes), yet it is convenient now to record the divisions of both balls.

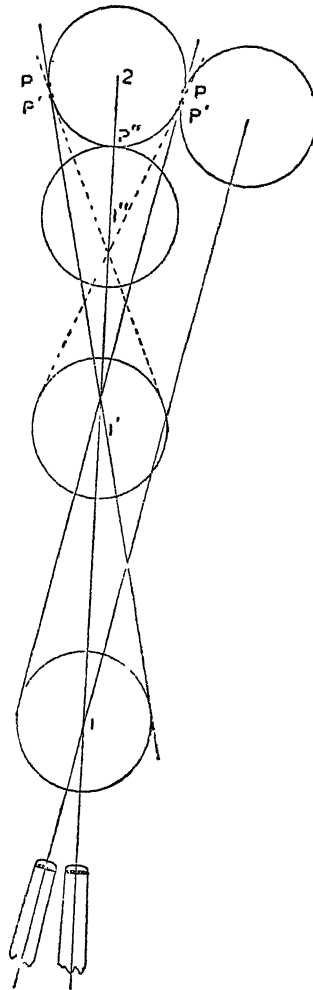


Fig 1

Ball 1 is divided by its vertical and horizontal diameters

into four parts. The centre stroke is delivered at *c*, and is of all strokes by far the commonest and most important.

A ball struck high and right is struck in the sector *c a e*; low and left in *c d b*, high and left in *c a d*, low and right in *c e b*.

The vertical and horizontal lines are divided from the centre where they intersect, into four equal parts each way. Thus a ball $\frac{1}{4}$ high is struck on the line *c a* at the point marked $\frac{1}{4}$, $\frac{1}{2}$ low is struck on *c b* at the point marked $\frac{1}{2}$; $\frac{1}{4}$ right is

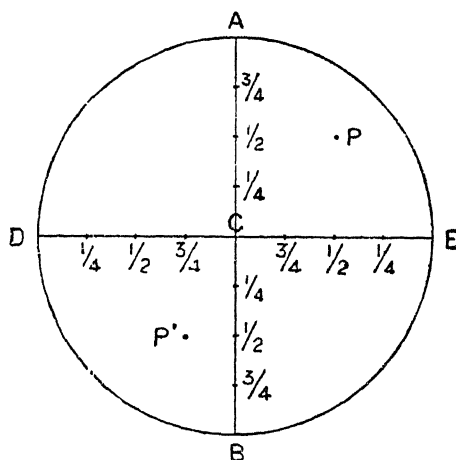


Fig 2

struck on *c b* at the point marked $\frac{3}{4}$; $\frac{1}{4}$ left is struck on *c d* at the point marked $\frac{1}{4}$. Combinations of these divisions are of course possible: thus $\frac{1}{2}$ high and right would indicate a point *P*; $\frac{3}{4}$ left and $\frac{1}{2}$ low is represented by *P'*. That division is quite as minute as the eye can follow, indeed, for general purposes it will probably suffice to indicate the sector only; to say, for example, ball 1 should be struck high and right.

In respect to ball 2 the matter is different; it cannot, as has already been shown, be struck save on the line *c c' a*, the height

of its centre C' above the table, therefore that line alone requires division. C' is the centre, and division is made therefrom in equal portions of one-fourth of the radius. In the accompanying figure ball 1, whose centre is C , is shown in the position it occupies at the moment of impact, when a half-ball stroke has been played; the centre of ball 1 is aimed at the edge of ball 2, and the point of impact is at $\frac{1}{2}$, between C and C' . No stroke is more important to master, or indeed easier, than the half-ball, because the point of aim is sharply

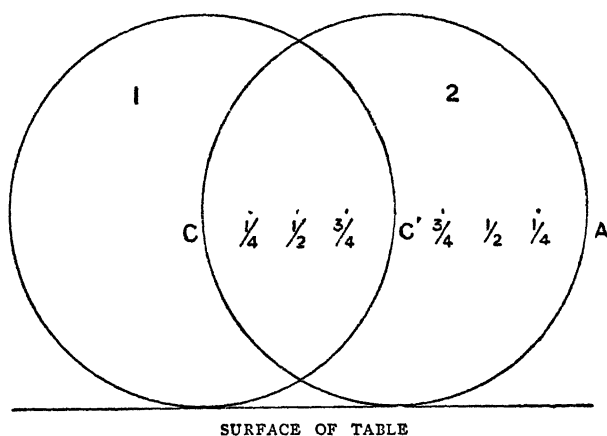


Fig. 3

defined; the line of the cue's axis passing through the centre of ball 1 and touching the edge of ball 2, and this edge being distinct affords a better target than an imaginary point on the ball's surface. The next easiest stroke as regards aim is when centre is played on centre, or ball 1 full on ball 2; $\frac{3}{4}$ and $\frac{1}{4}$ being both more difficult of aim, but resolute practice will soon diminish the trouble. Here an important matter should be noticed, which is the divergence between the point of aim and that of impact. The two coincide in one case only—*i.e.*

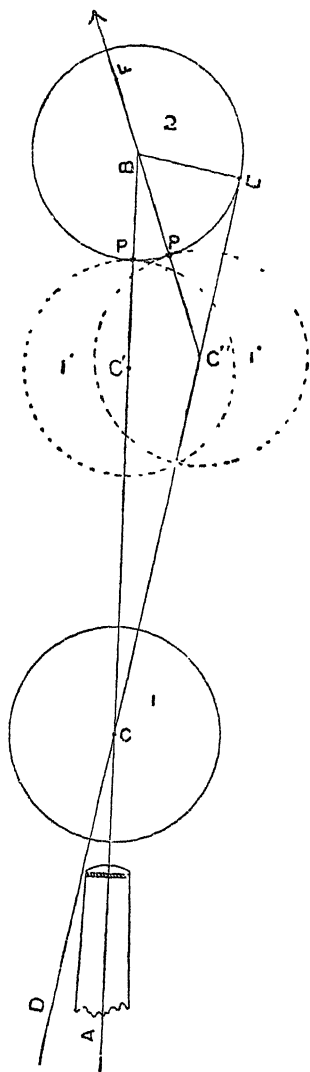


Fig. 4

when ball 1 is played full on ball 2, in every other instance the point of ball 2 aimed at is not struck. This fact is often overlooked and leads to many failures. A player sees the precise point on 2 which he desires to strike in order to pocket it, he aims accurately at that point, delivers his stroke, but fails to score. He is probably puzzled to account for the failure, but ultimately attributes it to personal error. Yet it very often is not so far as the delivery of cue is concerned; the error may lie in not recognising that he had to aim at a point other than that which he desired to hit in order that impact should be correct.

This will be plainly evident from fig 4

When ball 1 is played full on 2 the line of the cue's axis AB passes through the centres of both balls, and the points of aim and of impact are both at P

Next suppose it played half-ball, then DE is the line of the cue's axis and E the point of aim, but, so far from E being touched, if we suppose ball 1 arrested in its course at the

moment of reaching 2, then its position will be that of the dotted circle 1'', whose centre is c'', and p' is the point of impact. For any stroke between full and half-ball the point of impact will lie between p and p'; between half-ball and the extreme of fineness the point of impact will lie beyond p' in the direction of E.

Ball 2 being struck by ball 1 at p' must travel in the direction p'B E, the line from the point of impact passing through B the centre. There is practically no departure from this rule. Hence it follows that if it be desired that ball 2 should travel in the direction B E, say to a pocket, imagine a line from the pocket passing through the ball's centre, this cuts the circumference at p', which is manifestly the point which must be struck by ball 1. Where is the centre of ball 1 to be aimed at in order that p' may be struck? Produce the imaginary line E B p' to c'', making p'c'' equal to B p', or in other words equal to the radius of the ball. If the centre of ball 1, c, be aimed on c'', ball 2 must be struck at p' and must travel in the direction required.

Pray realise that it is impossible to hit ball 2 at the point aimed at save when the stroke is full, in every other case the aim must be beyond the point of impact, and the rule above given will enable anyone to determine precisely where aim should be taken.

When a ball is struck by the cue its first impulse is to slide forward, and if there were no friction between the ball and the cloth it would do so till arrested by other causes, but as there always is this friction, the lower part of the ball is thereby retarded, and the result is the rolling or revolving motion with which all are familiar. This will be further considered when the subject of rotation is discussed, but it is mentioned here as the cause of certain effects which will be observed in some of the strokes recommended for practice. When one ball impinges on another the immediate result is a greater or lesser flattening of both surfaces at the point of impact, this is instantaneously followed by recoil,¹ the result of each ball reassuming its spherical

¹ Or *restitution*, the effect of *compression*.

form The greater the strength of stroke the greater the flattening and the greater the recoil ; the converse likewise holds good.

Further, the force or strength with which ball 1 strikes ball 2 is immediately divided on impact , if ball 2 be struck full it appears to acquire from ball 1 the whole of its energy save that due to naturally developed rotation, the result being that ball 2 travels fast whilst ball 1 remains comparatively stationary. If the distance between the two balls be very small, little rotation is acquired and ball 1 transmits its motion to ball 2 and stops on or near the spot which that ball occupied ; if the distance be considerable, ball 1 acquires rotation which, overcoming the recoil on impact, causes it to travel slowly in its original direction. When impact is other than full, ball 1 parts with more or less of its force, which is transmitted to ball 2. What the one loses the other gains

These general remarks will seem to many self-evident and superfluous , to others they may prove difficult to realise and distasteful , but students, whether beginners or those who have already acquaintance with the game, may rest assured that a careful consideration of them can do no harm and may be of much advantage ; for practice is assisted by an intelligent appreciation of the behaviour of balls under certain conditions ; in short, by a consideration of cause and effect

For practice place ball 1 on the centre of the D on the baulk-line, put ball 2 a foot up the table in the central line, play 1 full on 2 with varying strength, at first with strength to carry 2 to the top cushion , the truth of the stroke will be shown by 2 passing over all the spots in the central line and 1 following slowly in the same line for a short distance. When tolerable certainty is acquired play the same stroke harder, and if correctly struck ball 2 will return from the top cushion and meet ball 1, kiss as it is called, in the central line. The stroke can be made more difficult by placing ball 2 further up the table, say on the centre spot, and playing as before, and again by placing it on the pyramid spot. This practice, though it may

seem uninteresting, is most useful ; it combines and continues that recommended for one ball with that required for truth of stroke on another. It also, as will hereafter be shown, is directly useful in the matter of cannons, hence it should be assiduously practised.

Next set ball 2 upon the central line at such a distance from the baulk-line as the player can imagine its division described on page 141, and play ball 1 so as to make three-quarter, half, and quarter-ball strokes with some confidence. This distance will no doubt vary with the stature and sight of the player, but 2 feet may be tried as about average. If P , P' , P'' be the points of impact for the various divisions, ball 2 will, after the strokes, travel in the directions R , R' , R'' , each being the prolongation of a line from

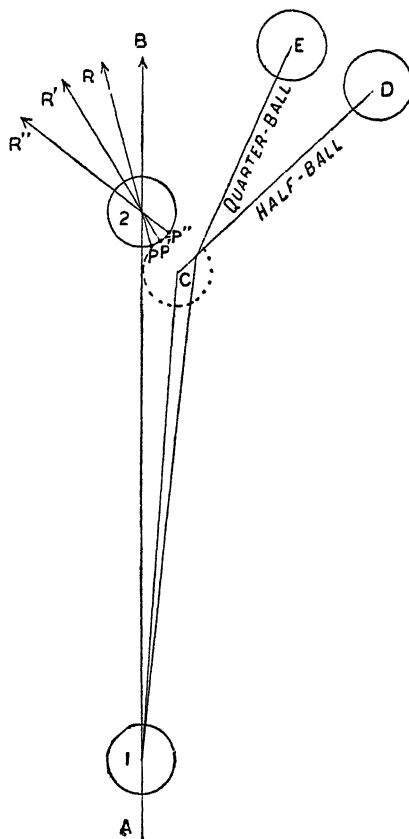


Fig. 5

the point of impact through the centre. Ball 1 will behave differently according to the strength with which it is struck ; what is always true is that it will travel in a contrary direction to

ball 2. If the one ball goes to the left after impact the other will go to the right. Played with strength 1 or 2, impact being at P, ball 1 will follow through the space which ball 2 covered, and will stop slightly to the right of the line A B. With impact at P' or a half-ball stroke, ball 1 will deviate further from the line A B, and travel in the direction D, A C D being the half-ball angle; when played quarter-ball, impact being at P'', ball 1 will deviate less from A B and travel towards E. The object of this practice is to accustom the eye to recognise approximately the directions taken by both balls after impact.

A small matter which is a little obscure connected with the language of billiards should here be noticed. In placing ball 1 for a stroke, it is usual, and generally desirable, to select a spot from which the angle 1 C D shall be what is known as the half-ball angle, and certainty in play is greatly based on the power of recognising this position. Consequently in time players, perhaps unconsciously, refer almost every stroke to that angle as a standard. If a hazard or cannon is on the table, they consider for a moment whether the angle contained between the two paths of ball 1 is greater or less than the half-ball angle, and to the best of their ability they apply compensations to meet the difference, playing fuller and harder when the angle is less, finer and slower when the angle is greater, until a following stroke becomes necessary. Nevertheless, the universal custom is to define the situation when the angle is smaller as *wider*, and when the angle is greater as *narrower*. Thus the position 1 C D is called wider than 1 C E. Clearly it is so only as regards the deviation of ball 1 from the prolongation of its original path—that is, from the path which would have been followed if there had been no impact—consequently the angle of deviation must be defined as that between the new actual path of ball 1 and the path that would have been described if the deviation had not taken place. This being accepted, the ordinary use of the terms *wider* and *narrower* is appropriate.

In this and in all diagrams as far as possible the lines followed by the centres of balls are shown; hence, as the centres cannot touch each other or the cushions, the lines do not reach

to the surface of either, but are necessarily short of the point of impact by the length of the ball's radius. Ball 1, after impact other than full, describes a curve due to the forces to which it is subject ; this is greater in proportion to the strength of stroke, and though in practice its effect must not be neglected, it is not ordinarily shown in the diagrams, which do not pretend to abso-

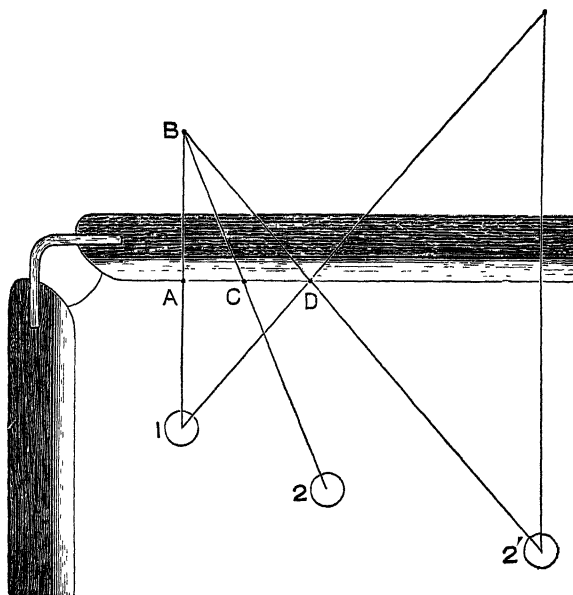


Fig. 6

lute accuracy, but merely to such measure of correctness as is required for practical purposes. An illustration of the curve, and a warning when its existence must not be overlooked, will be found in Chapter V.

From the strokes recommended in Chapter III. for practice it will have been learnt that in a general way a ball played against a cushion will return therefrom, so that the angle of reflexion shall be nearly equal to the angle of incidence. A useful two-ball practice based on this is to place balls 1 and 2 on the table and endeavour to play on 2, having first struck a cushion.

The difficulty is to determine the point on the cushion on which 1 must impinge so as to rebound on 2.

The solution is approximately —From ball 1 let fall 1 A perpendicular to the cushion A C D ; produce 1 A to B, making $A B = 1 A$. Join B with the centre of 2 ; where that line cuts the cushion at C is the point required. Play 1 so that it shall strike C and it will rebound on 2. Similarly, if the second ball occupy the position 2' the line from B to its centre intersects the cushion at D ; ball 1 played to touch the cushion at D will travel to 2'. In a game of course the cushion must not be marked, but in practice it will at first be found advantageous to mark the spot sufficiently to guide the stroke and educate the eye. This is easily done by placing a piece of chalk on the wooden frame of the cushion just behind the spot to be hit, thus doing away with the need of marking the cushion with chalk, which it is well to avoid. When it is necessary to mark the cloth of bed or cushion, pipeclay such as tailors use is preferable to chalk. Special attention is necessary to two facts : first, the angle of reflexion varies with the strength ; that is, a soft stroke will come off very nearly at the same angle as that of incidence, whilst with a hard stroke there is a perceptible difference, second, the point on the cushion which should be hit must not be aimed at. This is merely a modification of what has already been explained with reference to the points of aim and of impact. Fig. 7 shows how very far a ball on the line 1 P played, *i.e.* aimed at P, is from hitting that point, instead of doing so it strikes the cushion at T ; hence allowance must be made in aiming, the length allowed on the cushion diminishing as the angle approaches a right angle. When the stroke is at a right angle to the cushion the points P and T coincide and no allowance is required.

One reason why the angle of reflexion varies with the strength is that, on impact with the cushion, the ball, being harder than the rubber, indents it—makes a sort of cup, in fact, deeper as the stroke is stronger. Friction with the cloth of the cushion has also some effect on the angle, and there may be other causes at work ; fortunately, it is probable that

one to some extent counteracts another. This practice from a cushion is interesting as well as useful ; at first the beginner will be satisfied if he hits ball 2 anywhere and anyhow ; but soon he will be able to hit it on one side or the other, as he may wish, when the distance ball 1 has to travel is not very

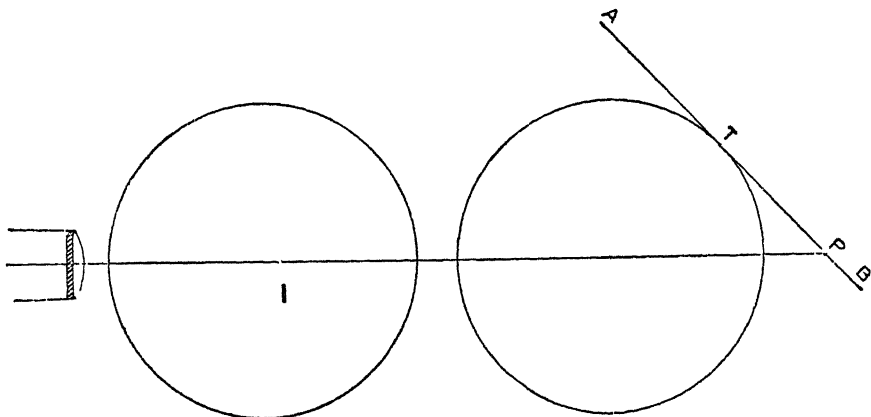


Fig 7

great Hereafter both cannons and hazards will be mentioned, which must be played *bricole*, or off a cushion before ball 2 is struck, and the practice proposed will make their execution fairly easy and certain We conclude this chapter, which has covered important ground, with four illustrations of the division of ball 2 at the moment of impact. A shows ball 1 applied to 2 for a quarter-ball stroke, B for a half ball, c for a three-quarter-ball, and D for a full-ball stroke ; the phases varying between partial and total eclipse.

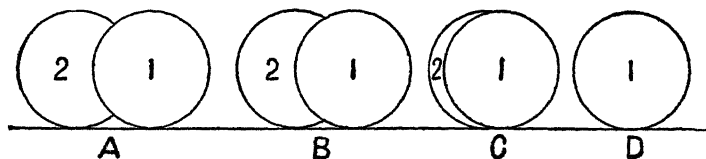


Fig 8

CHAPTER V

PLAIN STROKES, WINNING AND LOSING HAZARDS,
CANNONS : THREE-BALL PRACTICE

By the practice already recommended, the beginner should have become fairly able to strike ball 1 in the centre, and familiar with the divisions of ball 2 ; he may therefore with advantage proceed to play natural or plain strokes. We prefer the term plain, partly because, ball 1 being struck in the centre, no rotation beyond that which is self-acquired or spontaneous is communicated by the cue, and partly because one stroke deserves the name natural as much as another. It is as natural for a ball struck on its side to rotate round its vertical axis as it is for a ball struck in the centre to have no such rotation.

In billiards plain strokes cover a vast field ; most of the certainties, or strokes which should seldom be missed, come under that definition. Their number is infinite, and it is impossible to give diagrams of more than a few typical examples. The student can, without great effort, multiply and vary them at will, and it is desirable that he should do so, altering the strength and noting the behaviour of each ball after the stroke. He will thus learn more than he can possibly acquire from any book, however excellent, and will profit much if his practice is occasionally supervised by a competent instructor.

Let us begin with winning hazards. Place ball 2 on the centre spot ; it is then opposite the middle pockets. Choose one of them into which the ball is to be played. From what has already been explained, it is known that the ball should



A D SPUTED SCORE

travel on a line drawn from its centre to the centre of the pocket—that is, from *c* to *A* (fig. 1) ; also that the point of impact must be where that line prolonged meets the circumference at *B*, and that the centre of ball 1 must therefore, at the moment of striking, be at *P*, *B P* being equal to *B C*, or the radius of the balls. No matter where ball 1 may be situated, its centre has to be played on *P* in order that the winning hazard may be perfectly made.

Set ball 1 on the prolongation of *A C*, which is the line of the cue's axis. The player must place himself accordingly, and aim full at ball 2. The stroke is precisely similar to that recommended for practice over the spots, but easier, as the distances are shorter. It should be played with various strengths. With a soft No. 1, ball 2 will roll into the pocket, ball 1 following a few inches on the same path. If it diverge there is error in the stroke, and endeavour should be made to correct it. That is, the player should not be satisfied with the mere winning hazard, which is very simple, but should by watching the path of the balls, satisfy himself that the stroke was true. With No. 2 strength, or a free No. 2, ball 1 will follow on, and eventually drop into the same pocket.

When tolerable certainty has been acquired, ball 1 may be moved to *i'*, *i''*, &c, either to the right or left of the original position. No good can result from giving precise measurements for the various situations of ball 1 ; it does not, indeed, greatly matter where it is set, so long as the player can reach it with comfort, what is obligatory is that its centre must pass over the point *P*. The limit of the stroke is when the position *iⁿ* is reached ; thence, if correctly played, point *B* will just be touched, and no motion to ball 2 be communicated. Hence, when the path of ball 1 before impact is at right angles to that which 2 must travel, the winning hazard is impossible. In other words, a right-angled cut is impossible ; such strokes sometimes seem to be made, but the explanation will, on examination, be found in the size and shape of the pockets. These winning hazards should be practised into both middle

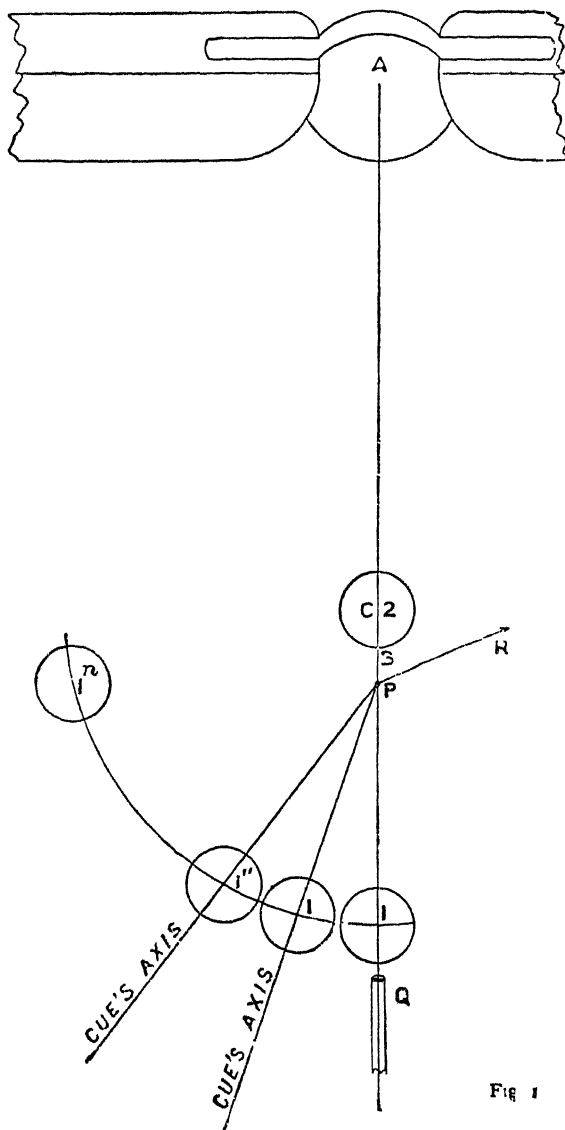


Fig 1

pockets till a tolerable certainty or confidence is acquired. Some persons will make the full, whilst others will play the fine strokes best, and again, it will often be found that, when playing into the right-hand pocket, there is a tendency to error on one or other side, but when playing to the left-hand pocket the mistake is just reversed. If the strokes are taken too full to the right, they will be made too fine to the left. The proper procedure is obvious : by making a very small allowance each way the mistake will be corrected, the eyes will become educated, and the tendency to error will diminish. It need scarcely be added that the kind of stroke in which one has least confidence should receive the most attention, failure indicates where practice is required.

Also, let the path of ball 1, after impact, receive close attention, and as soon as some certainty in making the hazard is felt, let the exercise consist quite as much in playing to leave ball 1 in or near a desired place as in the success of the hazard. The value of this is all but self-evident, and it is as important in pool or pyramids as in billiards.

Similar practice may, with advantage, be made to the top corner pockets, ball 2 being placed on the billiard, and afterwards on the pyramid spot. The rules for finding what point of 2 should be struck and the points of aim are, of course, unaltered, but attention may usefully be given to the following hint, based on the construction of the cushions at the neck of the pocket. Whether a pocket is easy or not depends, perhaps, more on this than on the actual width at the fall. If the channel is gradually rounded off, with but little rubber in the sides, a ball once in the neck is nearly sure to fall into the pocket ; but if there is much rubber in the sides, the same ball would expend its energy in rebounding from side to side, and have no disposition to travel forward into the pocket. Cushions cut square, as it is called, make the pockets more difficult than those sloped gently away, the channel is narrower.

Let ball 2 be placed between the spot and the top cushion, or anywhere on a line connecting a point so chosen and

the corner pocket into which it is proposed to play. In this case the point of aim is no longer the true centre of the pocket, nor even the centre of the portion of the pocket which is open from position 2, but a point so chosen that ball 2 may impinge on the neck or side of the pocket entrance, and thence drop in. The accompanying sketch will show what is meant. If ball 2 were played on c, the centre of the pocket, it would strike the cushion A, and very probably rebound to the opposite side, and the hazard would fail; but if, on the contrary, it strike the cushion B at a point T, inside the neck

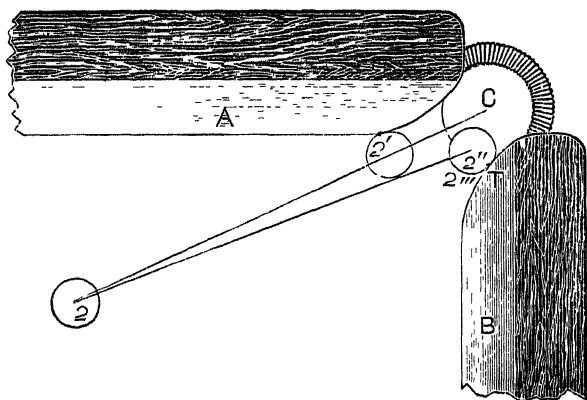


Fig. 2

of the pocket, then, unless played very hard, the hazard will to a certainty be made.

With reference to the position of ball 2, c is termed a blind pocket, because the full width at the fall is not open. Hazards into blind pockets are therefore more difficult than those into open ones; nevertheless, if the player is careful to observe the required point of impact, and to allow accordingly in aim, such strokes can be played with considerable confidence.

When measurements are given whereby the positions of balls on the billiard-table may be found, they must not be supposed to be absolutely accurate. They no doubt are nearly

so for the table and balls with which the stroke was played for the purposes of this volume ; but tables, balls, cloth, and climate are subject to variation which may make modification necessary, and, moreover, each man has a mode of using his cue as peculiar to himself as is his handwriting. Therefore, once for all, let it be understood that the diagrams and descriptions must be treated as but approximate. All measurements from a cushion are from the edge on which balls impinge to the centre of the ball whose position is to be fixed ; those from a pocket are from the middle of the fall. The dotted lines with figures marked in Diagram I, example A, show the measurements whereby the position of ball 2 is determined. Many mistakes are made by inaccurate reading of instructions, and by failure to use the measure correctly, but the eye will prove a useful check, for if the position of the balls, when placed on the table, does not nearly coincide with that shown in the diagram, there is an error somewhere which a little patience and consideration will cause to be discovered.

A few typical strokes are shown on Diagram I.—

A Ball 1, on or near the right corner of the D, ball 2 $7\frac{1}{2}$ in below the right middle pocket, and 8 in from cushion 3. The measurements are in this instance shown on the diagram as a guide in other cases.

Play a free No 1 strength. Ball 1, after pocketing 2, should travel to the top cushion, and so far back as to leave an easy winning hazard on a ball on the billiard spot. With slight variation of the position, the stroke may be played slower or faster, as may be desired. If the strength is misjudged, and ball 1 should stop somewhere between the top cushion and the desired position, a losing hazard in the left top pocket may not improbably be possible. The positions of both balls may be considerably varied, whilst the stroke remains virtually unchanged. The further ball 1 is brought to the left along the baulk-line, the fuller is the hazard, and the position of ball 1 after the stroke will be more to the right of the spot than that shown in the diagram.

B. Ball 1, $25\frac{1}{2}$ in from cushion 2, and 10 in from the top cushion.

Ball 2, touching the top cushion and 12 in from the right top pocket. Play a gentle No 1, which will leave ball 1 about 7 in. from cushion 2 and 14 in from the top cushion.

In this stroke ball 2 and the cushion are simultaneously struck, as will be apparent if ball 1 be placed against ball 2 at the proper point of impact, hence a very common rule is to

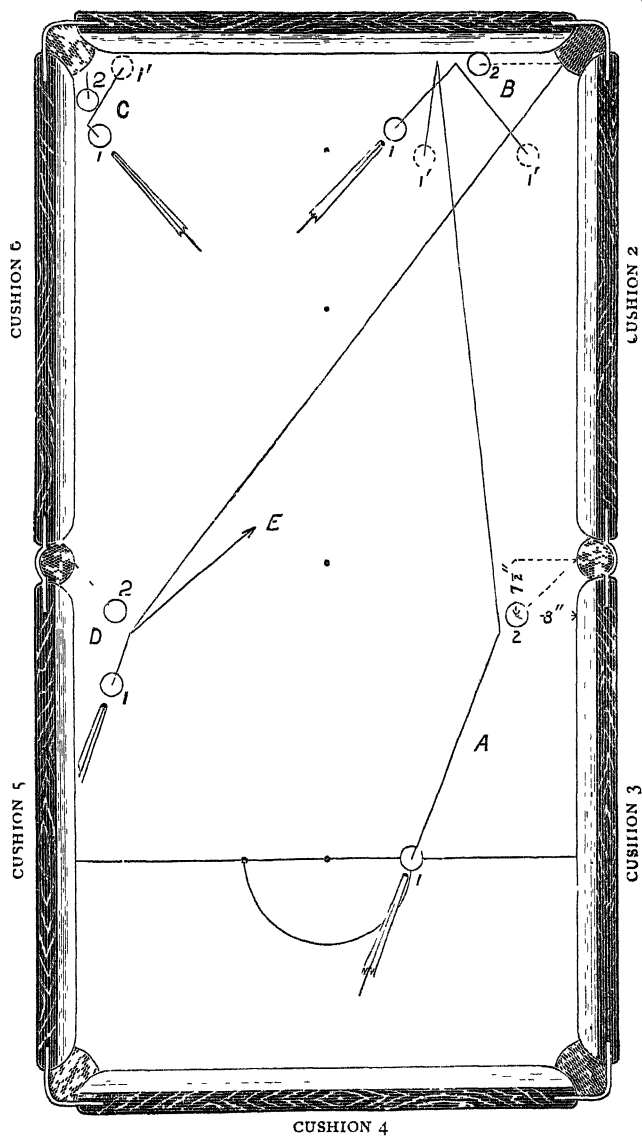


Instead of Long Rest

direct the player to aim between ball and cushion. The general rule however for finding the point of impact holds good, and the fact that under the circumstances the cushion is struck at the same time as the ball is merely a coincidence

C. Ball 1, 3 in from the left side cushion, and 9 in from the left top pocket

Ball 2, touching the left side cushion and $4\frac{1}{2}$ in from left top pocket. Play a very soft stroke so that ball 1 may be left at 1'; a losing hazard from the spot is then open. This stroke



CUSHION 4

Diagram I.

is best made if the player stand close to the balls and lean over the table, making his bridge for the cue *bouclée*—i.e. the fore-finger bent round the cue. If played in the usual way the stroke could not be reached without the long rest, and the eye is then so far from the ball that error and failure are probable. Any ordinary player can show the stroke, which is quite easy and very useful.

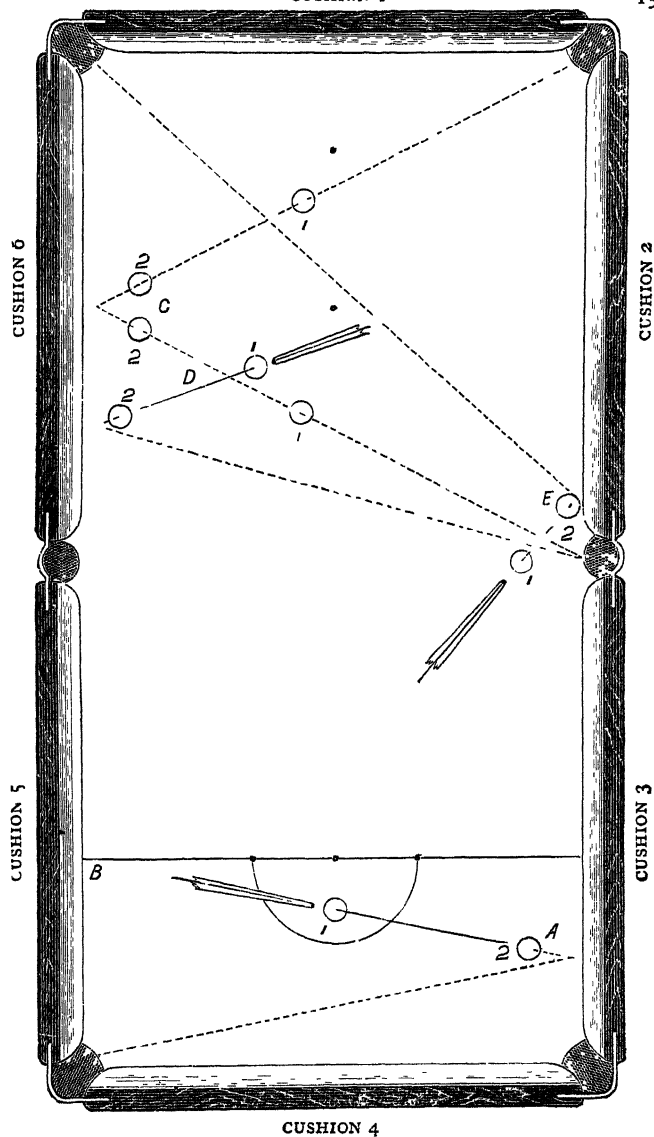
D. Ball 1, 5 in. from cushion 5 and 17 in. below the left middle pocket.

Ball 2, 6 in. from cushion 5 and 7 in. below the left middle pocket.

This is an example of a hazard to a blind pocket. Ball 1 should be struck gently, and its position after the stroke will be in the direction of the right top pocket. It is, in fact, a fine cut, and if played with sufficient strength ball 1 may probably go into the right top pocket. If ball 1 be placed 6 in. from cushion 5, the stroke is slightly fuller and may be played slower, after impact the ball will travel in the direction D E.

Diagram II. shows positions for doubles, with which it is well to accustom the eye. Though such strokes are not very much used in billiards, they are occasionally of great value, and their principle is based on the equality of the angles of incidence and reflexion. It is clear that a double may be set up at almost any part of the table, and it is well that several positions should be selected and played from till some certainty is obtained; those shown in the diagram are merely types. In these cases ball 1 is played full or nearly so on 2, and position for a further score may with attention to strength be attained. Doubles are used more in pool and pyramids than in billiards, and will be treated in detail when the two former games are described.

It may be as well to make a few remarks explanatory of the diagram. A is an example of a double in baulk where the balls are easily reached. The point A on the cushion where impact with ball 2 should take place is half-way between the baulk-line and the bottom cushion. A ball played from B to A



CUSHION 4

Diagram II.

should, if truly struck in the centre, fall into the left bottom pocket. Place balls 1 and 2 as shown in the diagram on the line B A, keeping 2 sufficiently far from the cushion to avoid a kiss, play full, and 2 should be doubled. Again, let c be the middle point of cushion 6, and imagine lines joining it with the right middle and right top pockets. On these lines place the balls. A full stroke from ball 1 to 2 should double the latter in the one case into the right top pocket, in the other into the right middle pocket.

Next, D is an instance of a simple double, from which in more ways than one a losing hazard from spot may be left. Ball 1 is 24 in. from cushion 6 and $26\frac{1}{2}$ in. above the middle pocket, ball 2 is 5 in. from the same cushion and $20\frac{1}{2}$ in. above the pocket. A full stroke will double ball 2 into the right middle pocket, and ball 1 may be left near the line from the left middle pocket to the spot.

In the case marked E, ball 2 is just beyond the shoulder of the right middle pocket, ball 1 being so placed nearly in a line from 2 to the left bottom pocket that a full stroke about No. 1 strength will carry 2 to the left top pocket. Ball 1 may be so played as to leave a losing hazard into the left top pocket from a ball on spot.

All these strokes should be played medium strength, say No. 1 or 2, in practice it will be found that the angle of reflexion varies somewhat with the strength, and in a less degree with the table.

As great accuracy is of the highest importance in playing winning hazards, it is evident that, when either ball has a considerable distance to travel, the stroke should not be played too slowly; for in a very slow stroke imperfections of ball or table tell more than when greater strength is used. Also, before leaving the subject, it is desirable to impress the reader strongly with the importance of the remarks on pages 153-4 respecting play into a more or less blind pocket. Attention to them is essential to good spot play and also to what is called play at

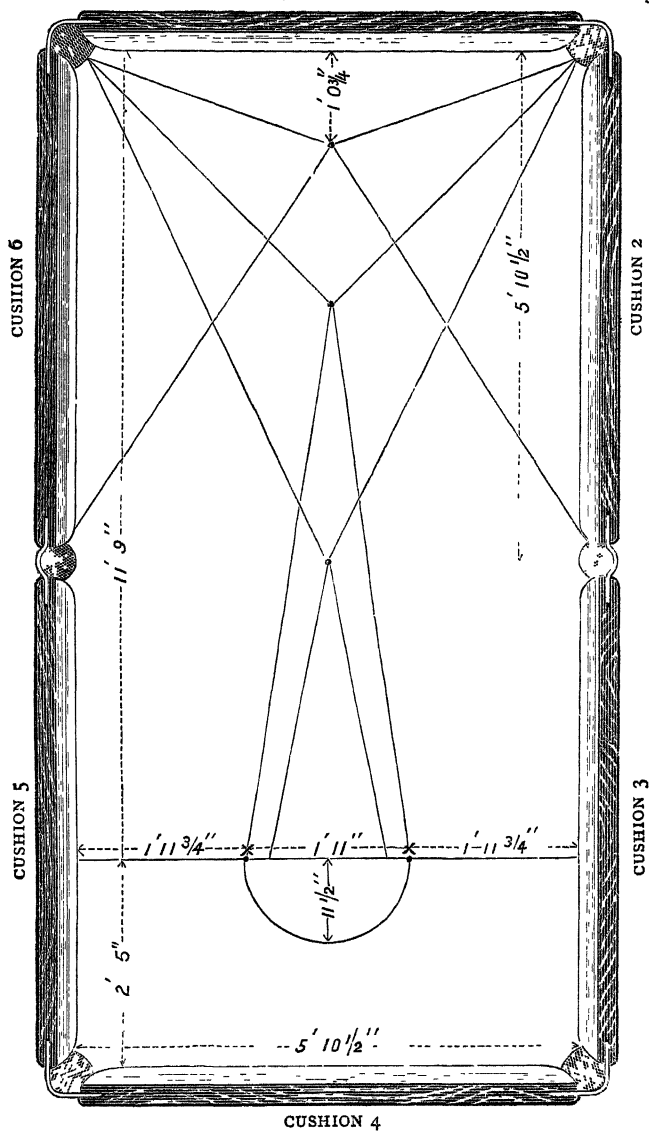
the top of the table. Clearing the dangerous shoulder of the pocket is the secret of success

We now proceed to losing hazards, which with most amateurs form the mainstay of the game, partly because being easier than winning hazards, they are usually taught first, but mainly because they are possible with a slovenly style and inaccurate striking which effectually prevent success with winners. In reality, however, they will repay care and accuracy as much as any other stroke, because, unless ball 2 be struck in the proper place, it will not travel in the desired path, and the result of a poor stroke may be success as regards the hazard, coupled with leaving ball 2 hopelessly safe. When played with intelligence and with due regard to the position of ball 2 after the stroke, they form most excellent practice. Following the usual custom, these strokes may be divided into short and long losers, and each will be separately treated, at present, of course, plain strokes only being considered. It is convenient to take the half-ball hazard as the standard or typical stroke, it is the easiest for the reason given at p. 141, because aim is taken at the edge of ball 2, a well-defined mark, instead of at an indefinite point on the ball's surface. Moreover, on billiard-tables certain positions are recognised as affording half-ball losers, and these are most valuable to a player as supplying the means, during play, of testing and correcting his strokes or his judgment of angles. It often happens from many causes that a man's eye or nerve partially fails, which failure destroys confidence and begets still worse play; he probably before long gets a stroke from one of the many positions which should be played half-ball. The mere effort to recognise the situation tends to arrest demoralisation, whilst the success which follows correct recognition goes far to restore equanimity and confidence. That is one reason against wantonly altering the positions of the spots on the table, the size of the D and such matters; though, no doubt, if the game can thereby be certainly improved, the alteration is justified, and in time players will learn similar positions under the altered circumstances. Hitherto such

changes have been made rather with the view of cramping the play of one or two men, and so placing others less able or less diligent on a par with them, than with the object of making an undeniable improvement in the game. Such modifications under the pretext of reform are much to be deprecated.

Taking the billiard, pyramid, and centre spots as fixed points on the table, Diagram III. shows with sufficient accuracy the lines of half-ball strokes to the top pockets. Let the billiard spot be considered first. From either top pocket there is a half-ball stroke to the opposite one ; also from either middle pocket there is similarly a half-ball hazard into the opposite top pocket. Next, from a ball placed on the pyramid spot there are half-ball hazards from either corner of the **D** into the top pockets ; and, lastly, from a ball on the centre spot, half-ball strokes to either top pocket may be made from positions about $7\frac{1}{2}$ in. to the right and left of the centre spot of baulk. Precise accuracy in definition of these strokes is not attempted ; tables and balls vary, whilst no two men strike exactly alike ; hence each must work out for himself the exact position for a half-ball stroke , it will in every case be reasonably near the lines indicated

Diagram IV. illustrates several losing hazards, all good for practice. For the group marked **A**, place ball 1 on an imaginary line from the centre of the red spot to the upper edge of the shoulder of the left middle pocket about half-way between them, where it can be conveniently reached by the player ; it is then in position for a gentle half-ball stroke to the right top pocket. When correctly played, impact with ball 2 takes place on the central longitudinal line of the table, and consequently 2 travels to the top cushion on that line, and returns on the same path a shorter or greater distance according to the strength of stroke. A very gentle one will bring ball 2 back to the spot ; a medium stroke will result in leaving it near the pyramid spot, and it can be brought further down the table if desired , but for practice at this stage endeavour should be made to leave ball 2 between the red and pyramid spots on the centre line. If this is effected, ball 2 has been truly struck ; should it return to the right of



CUSHION 4

Diagram III.

the line it has been struck too full, and if it rests to the left of the line too fine. So that here again we have an index which points out error and shows what is required for its correction. The hazard is so easy that after a little practice it will seldom be missed, and for that reason it should be worked at till it becomes what is called a certainty

Then from a lay off, in the direction of the right middle pocket, a series of positions marked A' A'' A''' A''', each about $1\frac{3}{4}$ in. from the other, and from each of these play the hazard. The point of impact should be the same in every case, therefore the point of aim will vary slightly with the change of position ; but the chief variation in the stroke lies in the strength employed.

For the position A' the strength is about No. 2, and ball 2 should be left on the central line L L between the centre spot and the bottom cushion. For A'' the same stroke a little stronger, ball 2 returning from the bottom cushion towards the centre spot : and so on. It is seldom necessary to practise beyond A''' in dealing with plain strokes. The strength required for this stroke is considerable approaching No. 4, and ball 2 should travel beyond twice the length of the table. In all these strokes endeavour should be made to keep ball 2 travelling on the line L L , this will be found not quite an easy matter, and sometimes divergence may not be from any fault of striking, for an imperfection in the ball which might account for an error of half an inch or less in 6 ft. would produce a perceptible deviation during a journey of 24 to 30 ft. Nevertheless, the prime source of failure is to be looked for in a faulty method on the part of the player, who, if he cannot easily remedy what is wrong, should without hesitation revert to the practice previously prescribed. After some work at this he will probably find that ball 1 was not being truly struck, and will amend the fault. These strokes should then be transferred to the other side of the table, making the hazards into the left top pocket. They are very conveniently played with the left hand, and the player who can use both hands

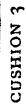


Diagram IV'

almost indifferently has a great advantage over a purely one handed performer. It is entirely, we think, a matter of resolution and of practice. At any rate, these strokes should be played from both sides of the table till they can be made without difficulty.

Example B exhibits a valuable stroke of common occurrence. Ball 1 is on the line from the left top pocket to the spot. That line should be taken from a point nearer the top than the side cushion. Ball 2 should be struck so as to drive it as indicated, half a foot or more above the right middle pocket on to the cushion, whence it rebounds and comes to rest conveniently over that pocket. A similar stroke should be played from the right top pocket, and there is as usual a little license as to the position of ball 1; it may be further from or nearer to the pocket than is shown in the diagram, and also a little above or below the line indicated, and still be a plain stroke, when the divergence is greater, side is required, and the methods of play will be hereafter explained.

The strokes marked C on this diagram afford admirable practice for middle pocket losing hazards; for their results record plainly the errors committed. They have been selected because the point of impact on ball 2 is in the central line of the table; therefore, as has been already shown, its path should lie on that line. Another advantage these strokes possess is that from each position of ball 2 precisely similar hazards may be made into the right and left middle pocket.

Place ball 2 in the central line of the table, 24 in. from the baulk-line. A half-ball hazard is open from either the right or left corner of the D. Ball 2 should pass up and down the central line, the distance varying with the strength; for simple hazard practice it should be brought back to its place before the stroke was made. Next bring ball 2 $1\frac{1}{2}$ in. down the central line; place ball 1 10 in. from the centre of baulk, play as before.

This stroke may be repeated by bringing ball 2 down the central line $1\frac{1}{2}$ in. each time, till a position 18 in. from the

baulk-line is reached When nearer than this the stroke is so far changed that the strength must be reduced, so that ball 2 shall not return from the top cushion, but shall be cut towards one of the top pockets, and as the position of ball 2 approaches the baulk-line it will be found desirable to place ball 1 further and further back in the baulk within the limits of the D. Ball 1 is placed $1\frac{1}{2}$ in towards the centre for each stroke up to the fifth when ball 2 is 18 in. from baulk. Whilst accuracy should be aimed at, its perfect attainment is impossible ; in playing these strokes occasionally a very good one may be made, and ball 2 may keep very close to the central line. Oftener, however, there will be divergence, and hence it is well to recognise limits within which the stroke, though not very good, may yet suffice to leave ball 2 in play. In the diagram the lines P M and Q N, drawn from the corners of the D parallel to the sides of the table, form such boundaries. If ball 2 be left anywhere in the space so inclosed, and as far down the table as the spot, there is almost certainly a plain hazard to be made off it from baulk into either top or middle pockets.

Other and easier middle pocket hazards may be indefinitely multiplied, and should be practised till the person playing acquires confidence, not merely that he can make the stroke, but that he can vary the strength at will from such delicacy as scarcely to move ball 2 to one which will bring it in and out of baulk. A few examples are given in Diagram V.

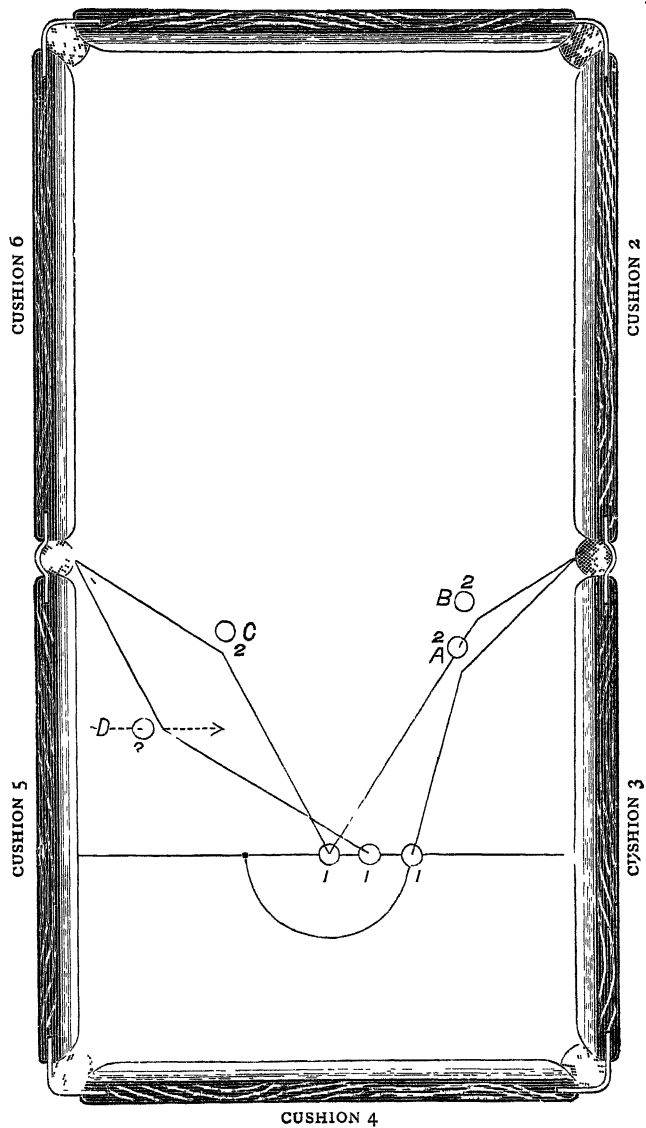
A. Ball 2, $16\frac{1}{2}$ in. from cushion 3, $12\frac{1}{2}$ in. below right middle pocket ; ball 1 on right corner of the D. Play half-ball about No. 2 strength, leaving ball 2 placed for a hazard in the left middle pocket. Ball 2 can be brought back nearly over the centre spot, and the danger of the stroke is that, if played too fine, ball 2 will lie near cushion 6 and be practically out of play.

B. Ball 2, $15\frac{1}{2}$ in from cushion 3, 6 in. below right middle pocket ; ball 1 on baulk centre spot Play half-ball No. 2 strength, leaving ball 2 with hazard into right middle pocket.

C. Ball 2, 21 in. from cushion 5, 10 in. below left middle pocket, ball 1 on baulk centre spot. Play half-ball No. 2 strength, bringing ball 2 back over or near the centre spot of the table. With slight variation of strength and aim ball 2 can be brought back into almost any desired position on the table.

D. Ball 2, 9 in. from cushion 5, $23\frac{1}{2}$ in. below left middle pocket; ball 1, $5\frac{1}{2}$ in. to the right of the centre of baulk, or on position 5 of Example C, Diagram IV. Play a half-ball slow No. 1. Ball 2 will travel to the side cushion on a line at right angles to its face, or, in other words, parallel to the baulk-line, and will return on the same line to a distance varying with the strength. A medium No. 1 strength will bring the ball back from 24 to 30 in. from the side cushion. There is great latitude in placing ball 1 for this stroke, which can be made as far as $8\frac{1}{2}$ in. to the right of baulk centre, the difference in play being merely in strength. The further ball 1 is placed from 2 the greater is the strength required, and as a consequence the further does ball 2 return from the side cushion. This stroke is of the class called 'jennies.' Each stroke here recommended for practice can be played from either side of the table, and this should always be done in order that the eye may become equally familiar with the angles into either side pocket.

The next two examples (Diagram VI) are of an importance which the beginner may not at once realise, but which is abundantly clear to a professional or to an advanced amateur. The hazards are in themselves so easy that a very poor player can have no difficulty in making them, but mark the difference between the right and wrong method of play. In the first example the paths of ball 2 after impact are drawn, both when rightly and when wrongly struck, and an examination of them will show that if the proper method is followed, error in strength has much less effect in leaving the ball out of play, and if the stroke is wrongly played the margin for such error is comparatively small. The principle here illustrated

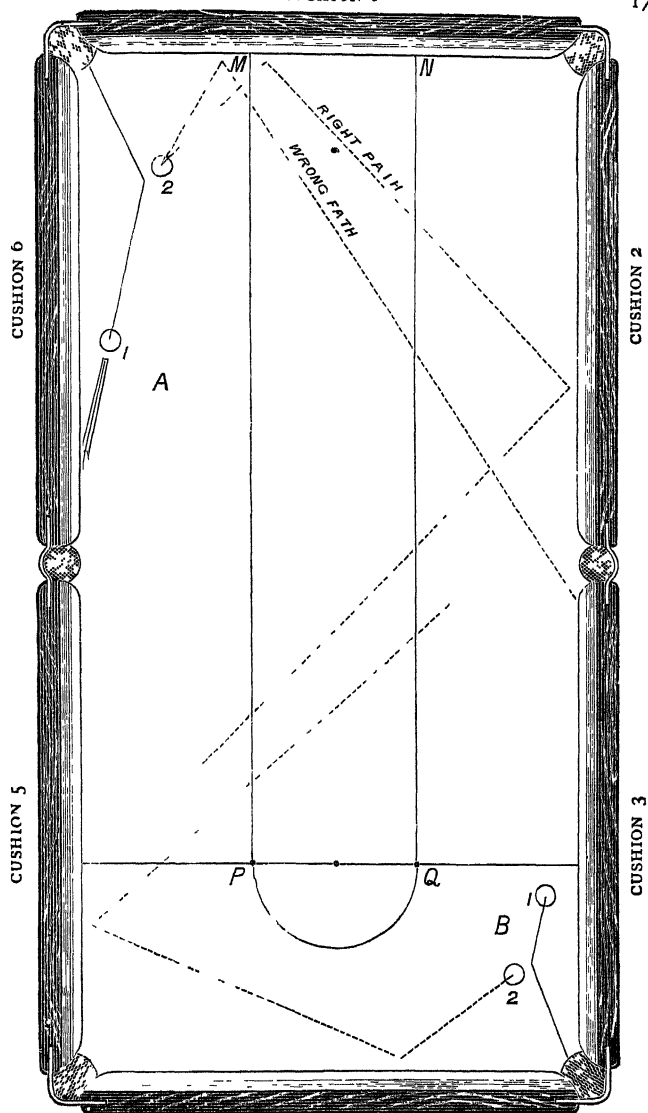


applies to many positions, and consequently the strokes deserve close study

Example A —Place ball 1, 40 in. from the top cushion, 7 in. from cushion 6; ball 2, 16 in. from the top cushion, 11 in. from cushion 6; play a free stroke rather finer than half-ball; it is a bad stroke indeed which leaves ball 2 out of play. Another good example is shown at B; ball 1, 24 in. from cushion 4, $4\frac{1}{2}$ in. from cushion 3; ball 2, 13 in. from cushion 4, 9 in. from cushion 3. Play a free stroke finer than half-ball on 2, which will follow a course somewhat resembling that indicated

Diagram VII may be thus set up :—Ball 2, 5 in. from left middle pocket, $\frac{1}{2}$ in. above a line joining the centres of the two middle pockets; place ball 1 7 in. to the right of the centre spot in baulk; play half-ball on ball 2 a free stroke. Ball 2 must be very badly struck if it is left out of play; it should strike the left side and top cushions and return to position. If played improperly, it returns from the top cushion only, and unless the strength is very exact is probably lost to play. Many accidents may happen, it may be holed in the left top pocket, or, still worse, catch in it and run safe under the top cushion; it may return close to cushion 6 and come to rest either above or below the middle pocket; in each case it is left in a more or less undesirable position. If played too full, ball 2 will probably be left safe near cushion 2; hence there are at least two types of wrong paths which might be shown, but they have been omitted to avoid complicating the diagram.

Having fairly mastered short losing hazards, the next step is to study similar strokes into the top pockets from baulk. They are called long losing hazards, and form an excellent test of a performer's capacity at the game of billiards, in which they fill an important part. They require greater accuracy than the short hazards, because the balls have to travel over a greater distance, so that correctness in placing ball 1 for a plain half-ball stroke on ball 2 is of the greatest consequence. Smoothness and truth in the delivery of the cue must not be lost sight



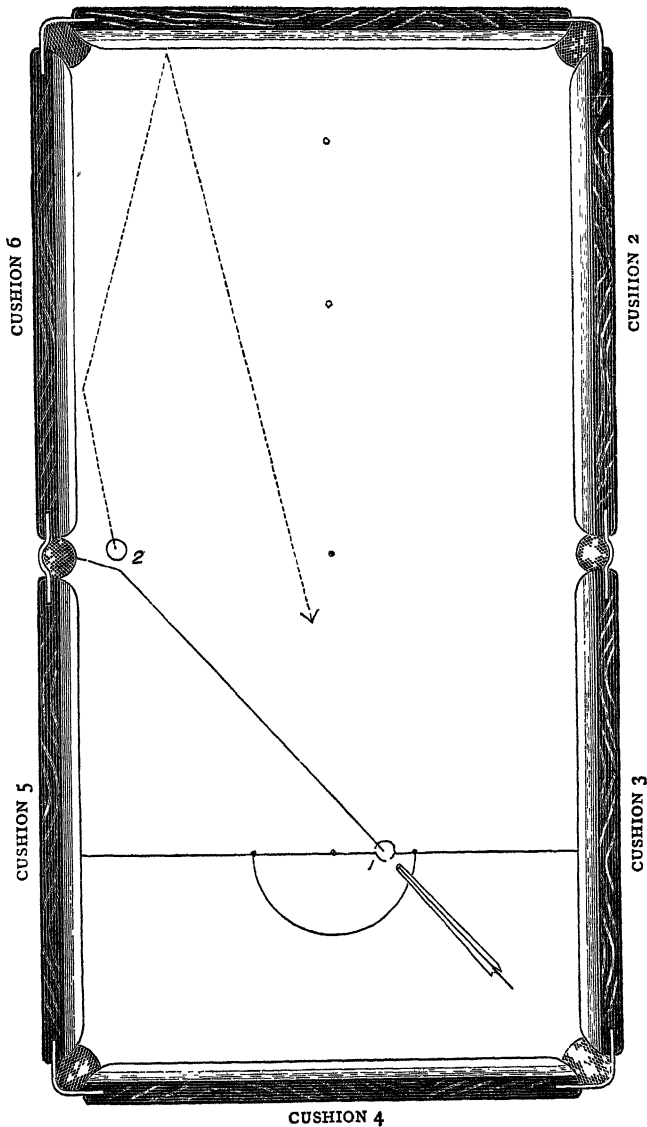
CUSHION 4

Diagram VI.

of, and a short reversion to the practice recommended in Chapters III. and IV. for the attainment of these objects will prove to be of much benefit.

The typical long losing hazard is made from ball 2 on the centre spot, ball 1 being about $7\frac{1}{2}$ in. from the centre of the baulk. Differences in the elasticity of the balls will make a slight alteration in the best position for ball 1 ; where it is considerable, 8 in. may not be too far from baulk spot, and where it is less 7 in. will suffice ; the position also varies with the strength of stroke. This hazard is rightly considered a difficult one, and it cannot be mastered without much application , it is indeed now of more value than of old, because in a break when ball 1 is left touching another ball, the game is continued by placing the adversary's ball on the centre spot, the red on spot, and playing from baulk

The stroke can be made with considerable difference of strength, which varies of course with the position desired for ball 2. Ball 1 should be struck in the centre (not below) about No 2 strength ; this will bring ball 2 back over the middle pocket, the stroke being played half-ball. If it be made ten or twelve times in succession on a clean table, the path travelled by 1 after impact will be fairly visible, and it is an instructive subject of study. First there is a straight line to within the length of a radius of the point of impact, next there is a somewhat violent curve, the result of the forward course suddenly modified by impact, the rebound due to elasticity and the frictional action between ball and cloth, and this in turn is merged into a second straight line. The action described is not peculiar to this stroke, but is visible in many others, and exists more or less in all, but this one forms a favourable opportunity for observation. The path travelled by ball 1 is roughly indicated in fig. 3, and the practical lesson to be learned therefrom is that in playing cannons the curve must never be overlooked or forgotten when the third ball lies within the sphere of its influence. Reference has just been made to the impact of two balls and the rebound which follows, a subject



CUSHION 4

Diagram VII.

which was referred to in the last chapter ; it is of interest, and at this moment appropriate, to consider the matter a little further.

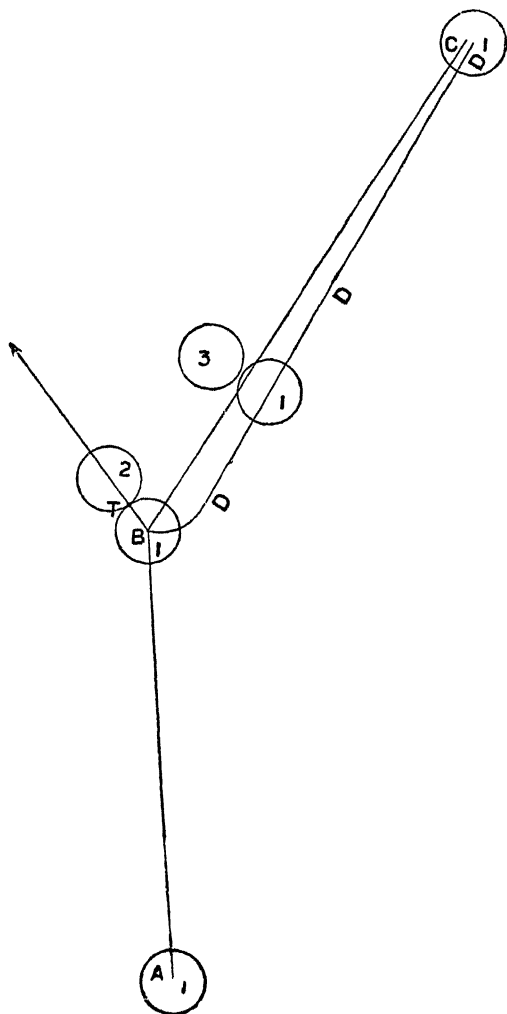


Fig 3

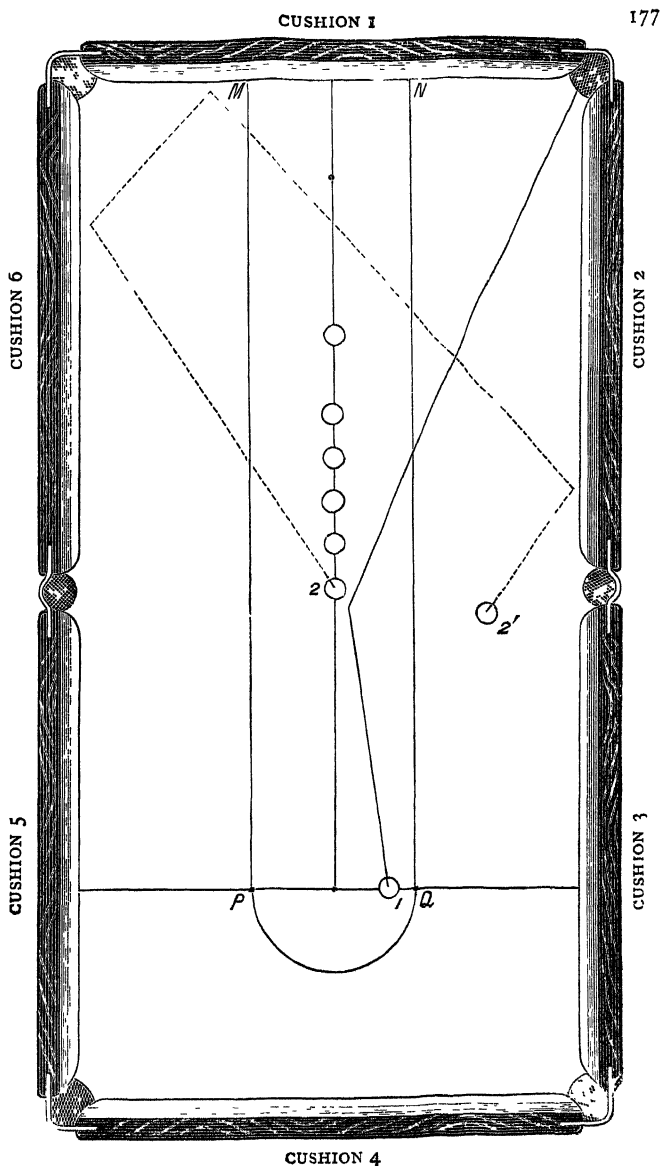
In fig. 3 ball 1 played on 2 impinges at T; 2 travels from T as shown by the arrow. BC shows the line travelled by 1 after impact as it is exhibited in the diagrams; but the true path is more nearly BD. Hence it is clear that a cannon on ball 3 would just be missed, the position of 1 being indicated in the act of passing 3. The tendency of the lines BD and BC to approach each other and ultimately to coincide is apparent. It is also clear that the magnitude of the curve BD depends on the strength of stroke as well as on the elasticity of the balls. If played very hard, it will be greater; if very soft, it will almost disappear, the line of travel approximating to BC, in which case it is evident the cannon would be made.

The balls may for our purpose be assumed to be of equal density and perfectly elastic; that is, they are equally hard, equally heavy, and when they receive the shock of impact they recover their figure or shape with a force equal to that which caused the momentary compression. What happens more or less in every stroke in which one ball is made to strike another is that at the moment of collision the round surfaces are flattened by the shock, and impact is not confined to what is accurately called a point, but is extended to this flattened surface, which varies in size according to the strength of the stroke, the hardness of the balls, and the part of ball 2 struck. In using a very perfect set of ivory balls $2\frac{3}{8}$ in diameter, in a stroke rather fuller than half-ball with strength from No. 3 to 4, this temporary flattening was found to extend to about the size of the head of a small tin-tack, say $\frac{1}{16}$ in. in diameter; nearly but not quite as large as the billiard balls shown in the diagrams. The rebound is due to the reaction whereby the balls recover their normal shape; in the case of ball 2, which was at rest before impact, the effect is to make it travel on a line from the point of impact through its centre; the effect on ball 1, which was not only moving forward but also revolving, being to check its velocity, some of which is imparted to ball 2, to rebound, and to assume a new path, the first part of which is curved as a result of the blending of the various forces to which it is

subjected. In this explanation no pretence to a mathematical solution is made ; it is simply the result of watching the behaviour of the balls and endeavouring to account for it by an exercise of common-sense. Most persons who have played much must have noticed occasional stains of red on the white ball ; these were the results of impact, and if carefully examined would be found to be small circular spots ; similarly all persons are familiar with the fact that the red ball gradually loses its colour, which it parts with in the way here noticed.

Now to return to the long losing hazards ; the usual mistake is to place ball 1 for a stroke finer than half-ball, the result being that it strikes the side cushion on the dangerous shoulder ; therefore, when in doubt, allow for this and place the ball for a full rather than for a fine stroke. The hazard from ball 2 on the central point of the table should be constantly practised, first into one top pocket and next into the other, till it can be made with considerable facility and with varied strength. Then let ball 2 be placed on the pyramid spot and ball 1 on or near the corner of the D ; a half-ball stroke will make the losing hazard into either top pocket. Care should be taken not to hit ball 1 above the centre, and the strength should be about a soft No. 2. Ball 2, after striking the top and side cushions, should come to rest so that a middle pocket hazard may be left

Between these two hazards a number of others may be interpolated, the most satisfactory plan being to set ball 2 at intervals of 6 in. from the centre spot up the central line towards the pyramid spot as shown in Diagram VIII. By this means six separate hazards are provided for practice, or four are inserted between the two already described. Taking these four 6 in. in succession above the centre spot ; for the first, ball 1 should be placed about 7 in. from baulk centre ; for the second about 5 in. ; for the third about $2\frac{1}{2}$ in. ; and for the fourth on the centre spot of the baulk. As before explained, these positions for ball 1 are but approximate ; they require modification proportioned to the elasticity of the balls,



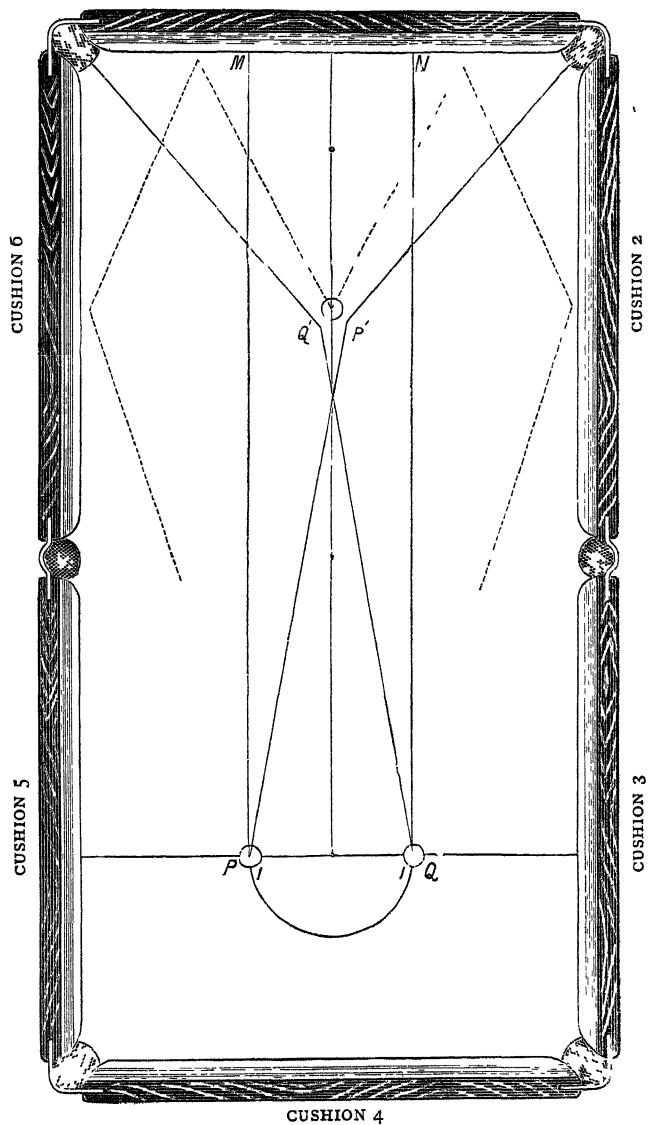
CUSHION 4
Diagram VIII

the personality of the player, and the strength used. For example, from the position when ball 2 is on the centre spot and for the next two positions, in playing with bonzoline balls it would be prudent to place ball 1 from $\frac{1}{2}$ to $\frac{1}{4}$ in further from centre of the **D** than the positions indicated.

When the eye has become acquainted with the half-ball angle, ball 2 should be set up anywhere within the lines **P M**, **Q N** (Diagram IX.), between the centre and billiard spots, and practice continued. Unless for some special purpose, endeavour should be made to leave ball 2 within the space inclosed by these lines.

On Diagram X. two hazards, when ball 2 is further up the table than the pyramid spot, are shown. They are types of two classes, either soft or strong strokes—forcing hazards, as they are called. **A** is of the latter class, that is, though the hazard can be played quite gently by the use of side, yet as a plain stroke from the left corner of the **D** the strength required would be such as to make it probable that ball 2 would be left in baulk after the stroke. To avoid this, place ball 1 so that the hazard may be played with strength sufficient to bring ball 2 in and out of baulk. Place ball 2 about 16 in. from the top cushion, and 26 in. from cushion 2; ball 1 should be played from baulk 8 in. to the left of the centre, a free No. 2 or No. 3 strength. Ball 2 will travel somewhat as shown by the dotted line; if struck fuller it will go further and keep better within the lines **P M**, **Q N**.

B is an example of a gentle stroke, and of a type which frequently occurs in the course of a game. Ball 2, 4 in. from the left side cushion and 4 in. from the top cushion. Place ball 1 on the baulk line on the left corner of the **D**. Play on to the left top cushion so as to rebound on 2 about half-ball. As in most other strokes, there is considerable latitude both as regards strength and the fulness or fineness with which ball 2 may be struck. A few trials will show where it is desirable to place ball 1 if a very gentle stroke is required, and where it should be put if a stronger one is wanted. That the latitude

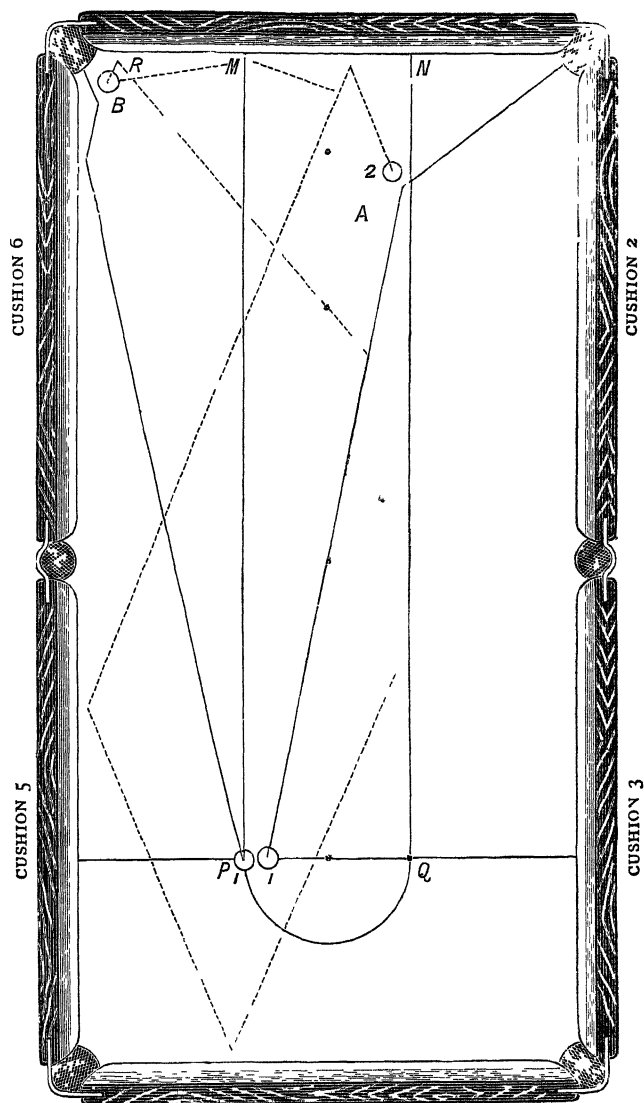


CUSHION 4

Diagram IX

both as to the position of ball 2 and to the point of aim is great is clear from the results of a number of trials, ball 1 being played at a point on the left side cushion about 18 in. below the top cushion, the path taken by ball 2 varied generally between the two shown on the diagram; when it was struck full or nearly so, it impinged on the top cushion at R, and travelled towards the pyramid spot, and sometimes beyond it; when struck fine it was cut towards M, and of course did not travel so far. It is useful to be able to play this stroke when ball 2 is at some distance from the pocket until, in fact, the direct losing hazard becomes possible, and therefore it should be practised till the eye can select with tolerable accuracy the point of the cushion at which ball 1 should be aimed. This method of playing by first striking a cushion or *bricole* is too much neglected in the English game, which suffers thereby; when played it is often considered a fancy stroke, whereas numerous plain strokes, specially cannons, are advantageously made by its judicious use. Seeing that play from a cushion is sometimes imperative, as, for example, when player's ball is in hand and a certainty left in baulk, *bricole* practice from a variety of positions will well repay the labour bestowed.

What has been mentioned about the elasticity of balls and the consequent rebound after impact has a special importance in treating of cannons. This class of strokes has a tendency in the recent development of the game of billiards to supersede in a measure losing hazards which formerly, without doubt, were the mainstay of our players. The inferiority of losing to winning hazards in respect to influencing the game was conclusively shown when the spot stroke was played, but that stroke was rarely formidable save in professional hands; the amateur, as might be expected, clinging to the easier losing hazard. When the spot stroke was barred, a substitute had to be found, and in a great measure this has been supplied by the cannon, chiefly, no doubt, in runs or series of strokes called nurseries (of which more will be said hereafter), but also by strokes which have the result of leaving the three balls close together, *gathering*



CUSHION 4

Diagram X.

them, as the Americans say To deal fully with these involves the use of side and of other refinements of play with which as yet the student is not supposed to be familiar ; at present attention is confined to plain strokes, which include those made direct from ball to ball and those made after impact with one or more cushions, but all played without side

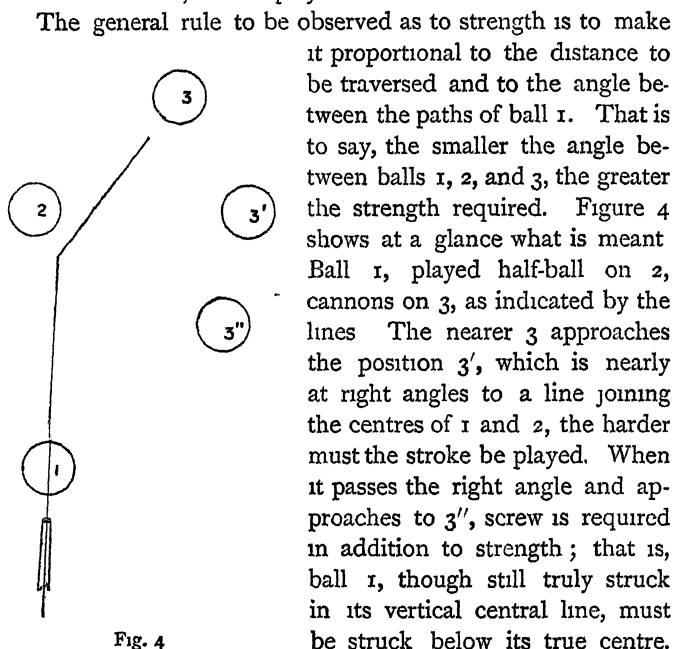


Fig. 4

it proportional to the distance to be traversed and to the angle between the paths of ball 1. That is to say, the smaller the angle between balls 1, 2, and 3, the greater the strength required. Figure 4 shows at a glance what is meant. Ball 1, played half-ball on 2, cannons on 3, as indicated by the lines. The nearer 3 approaches the position 3', which is nearly at right angles to a line joining the centres of 1 and 2, the harder must the stroke be played. When it passes the right angle and approaches to 3'', screw is required in addition to strength ; that is, ball 1, though still truly struck in its vertical central line, must be struck below its true centre.

Hence it may be said that, the greater the angle or the finer the stroke, the more gently should it be played ; the smaller the angle, or the fuller the stroke, the greater is the required strength.

The other point of importance is common to all plain strokes, but may here be usefully repeated ; the player should stand for the stroke so that the line from 1 to 2 prolonged through 1 backwards shall form the axis of his cue.

Another matter never to be forgotten is that the finer the

stroke the less velocity ball 1 loses, and consequently the less is imparted to ball 2 ; the fuller the stroke the more 1 loses and 2 gains.

It is evident that, in every instance given of losing hazards, if ball 3 be substituted for the pocket the stroke will be converted from a hazard to a cannon ; indeed, if that ball lie on any part of the path of ball 1 after impact or within the distance of a radius ($1\frac{1}{2}$ in) on either side of the path, a cannon must result. Hence the examples for losing hazards are equally available for practice cannons, the eye-training for the requisite angle being the same. The cannon is in fact easier than the hazard, the target being nearly equal to the width of two balls, as fig 5 shows ; 1 played on 2 may just touch 3 to the left, when it would occupy the position 1', or it may just touch the other side as shown, 1''. The width of this target varies with the distance between balls 2 and 3 ; at greatest it may be taken as double the size of a ball, or $4\frac{1}{2}$ in. The pocket on the other hand is usually $3\frac{5}{8}$ in. at the fall, the target it presents being under the most advantageous circumstances somewhat larger ; on the other hand, when it is blind the target is reduced

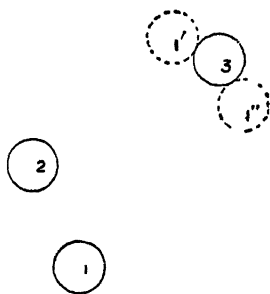
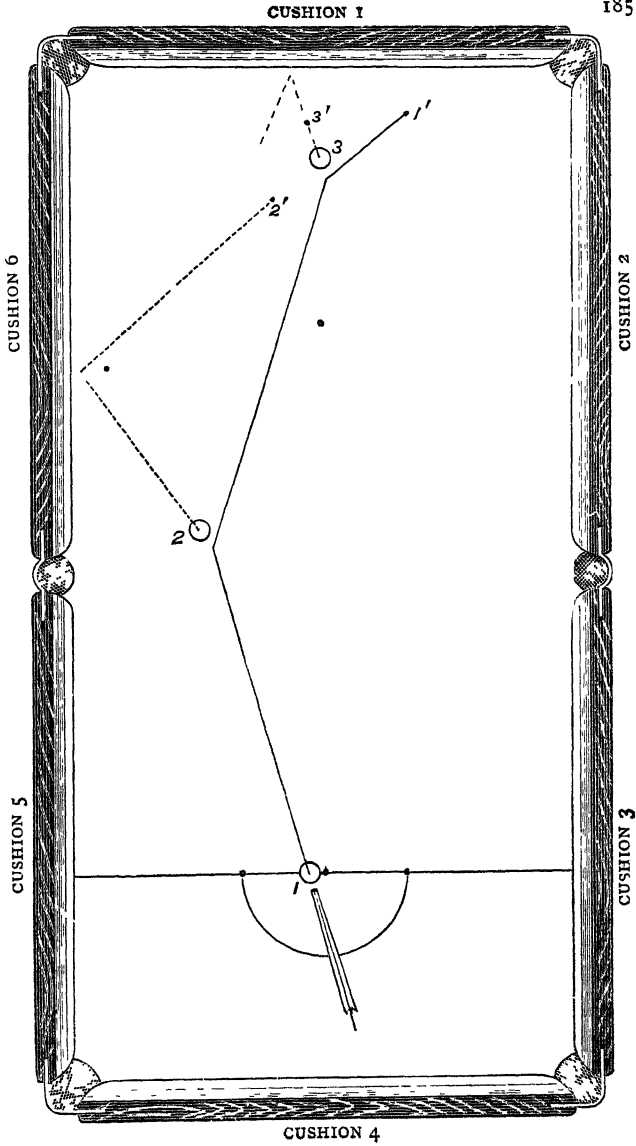


Fig 5

A few cannons useful for practice, which if properly played result in gathering the balls, that is in leaving the three balls together, or so placing them that another stroke is left, are shown in the accompanying diagrams. In every case when indication is desirable the path of ball 1 is marked by a thin line ; that of ball 2 by a dotted line ; and that of ball 3 by a line consisting of a dash and dot alternately. In some cases the positions of the balls after the stroke are indicated thus :—1', 2', 3', 1' being the position which 1 has taken, and so on ; in other cases this is not done because the situations are somewhat indeter-

minate, and also when the balls are but slightly moved the diagram would be confused and needlessly complicated

The cannon shown in Diagram XI. is not merely an excellent plain stroke for practice, but the position is not infrequently met with or played for in a game, and is of a type which will repay close attention. As in all other cases, the measurements are merely approximate, and it is evident that a great variety of similar cannons can be set up simply by varying the position of ball 2. For ball 3 is supposed to be on the spot, and ball 1 in hand, so that a slight change in the position of ball 2, either up or down the table or in its distance from the side cushion, merely entails a corresponding move of ball 1, so that the cannon on ball 3 may always be played a soft half-ball. In the present instance, ball 2 is 18 in. from cushion 6, and $6\frac{1}{2}$ in. above the central transverse line of the table. If ball 1 be placed a little to the left of the baulk centre, say from 1 to 2 in., and played half-ball, so as to do little more than reach ball 3, and cannon on its right side, ball 2 will be brought towards the spot from which ball 3 has not been far removed. The balls may not improbably be left in the positions 1', 2', 3', in which case there is an excellent opening, but it must not be expected that in every instance fortune will be equally favourable. Still, unless the stroke is very badly played, the three balls will be left not far from each other, and at the top of the table, and that is a sufficient recommendation. The stroke, when correctly set up, simply requires a true half-ball plain stroke, with attention to strength. If ball 3 is sometimes hit on one side, sometimes on the other, and occasionally missed altogether, the inference is that accuracy in the half-ball stroke is wanting, and it is well to try and recover that by the methods previously recommended; when confidence is restored, then pay particular attention to the strength. Do not be satisfied till ball 3 is displaced from the spot not more than a few inches, say under six. Hence, in this class of cannons, which, like all other strokes, should, whenever possible, be practised under professional supervision, the first



CUSHION 4

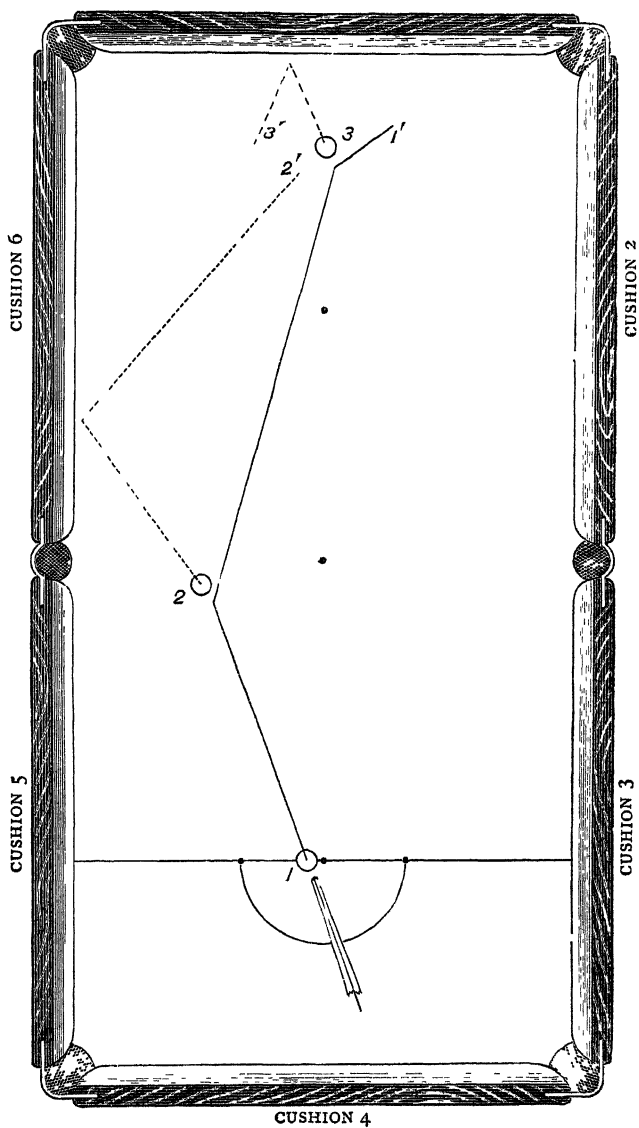
Diagram XL.

thing to do is to place ball 1 correctly for the half-ball angle ; the next is to strike 2 precisely half-ball ; and the last is to regulate the strength so that ball 1 shall strike ball 2 very gently. These remarks are to some extent general, and may be usefully applied, at the reader's discretion, to many strokes.¹

Diagram XII shows a variation of the stroke just described, ball 2 is still 18 in from the left side cushion, but is 3 in below the central transverse line. There is, it is clear, a losing hazard into the left middle pocket from about the right corner of the D, but it is a better game in this position to place ball 1 $2\frac{1}{2}$ to $2\frac{3}{4}$ in left of the baulk centre, and play the half-ball cannon. If ball 2 were further from the side cushion, the losing hazard would become the better stroke, and this example may be considered as almost the limit at which the cannon is to be preferred. The balls will approximately follow the paths indicated, and their positions after the stroke may be about 1', 2', 3', a fair chance remaining for continuing the break ; and if, as will often happen, ball 1, placed a little wider or played a little finer, should strike ball 3 on the other side, *i.e.* on the side next the left top pocket, then ball 3 is driven towards the right top pocket, leaving a hazard (a winner for preference) into it, ball 2 is left, as before, near the spot, and the situation is still eminently favourable. If played a great number of times, some unfortunate results will occasionally happen ; the three balls may be left in a line, all nearly touching the top cushion, and ball 1 between 2 and 3, even then a way may be found out of the difficulty, but at present the plain cannon is being considered, and it is difficult to set up on the table a better practice stroke.

The cannon shown in Diagram XIII., though apparently a little different, is, in reality, played precisely like the others ; the results, too, are in a way the same, for the three balls are gathered at the top of the table. The main difference is that, the cannon being made off the top cushion, ball 1 is generally left above ball 3—a situation not so favourable as when

¹ The cannon may be played either full on ball 3 or on the left side, should ball 2 be the red, the play is to double it over the right top pocket



CUSHION 4
Diagram XII

ball 1 is below the other two balls. It often happens, however, that ball 2 is so left that a losing hazard from it into the left top pocket can be made, and the break may be thus continued. The further it is desired to bring ball 2 towards the left top pocket, the more towards baulk centre should ball 1 be placed, and the nearer to the spot it may be wished to leave it, the finer should the stroke be set. One advantage of practising this stroke is that confidence is acquired in making the cannon from the cushion, which is in this instance greatly preferable to playing a forcing stroke direct, though many persons, thinking of the cannon alone, would erroneously select the latter mode of play. A substantial gain is made when the player has recognised that the stroke is almost exactly like the two just described, and that the top cushion may, save in a small extra allowance of strength, be completely ignored.

On Diagram XIV. two cannons are shown; to that marked A special attention is invited. The position, or a similar one, often occurs, and is as often incorrectly played by amateurs, when balls 2 and 3 are on the table, and 1 in hand. Thinking solely of making the cannon, the player usually spots 1 towards the right of the baulk for a half-ball stroke. Result, a cannon and separation of the balls, 2 being doubled towards baulk, 3 carried up the table and not improbably lodged in safety under cushion 6.

Place ball 2, 14 in. from cushion 5, 30 in. below the left middle pocket.

Ball 3, 11 in. from cushion 5, 17 in. below the left middle pocket.

Ball 1, 9 in. to the left of baulk centre. Play a gentle stroke on 2 so as to double it from the cushion to 3 and with strength sufficient for ball 1 to reach 3. The three balls will be left close together and not far from the left middle pocket. Care must be taken to prevent the balls being left in one straight line, and also to avoid a kiss between balls 1 and 2 before the cannon.

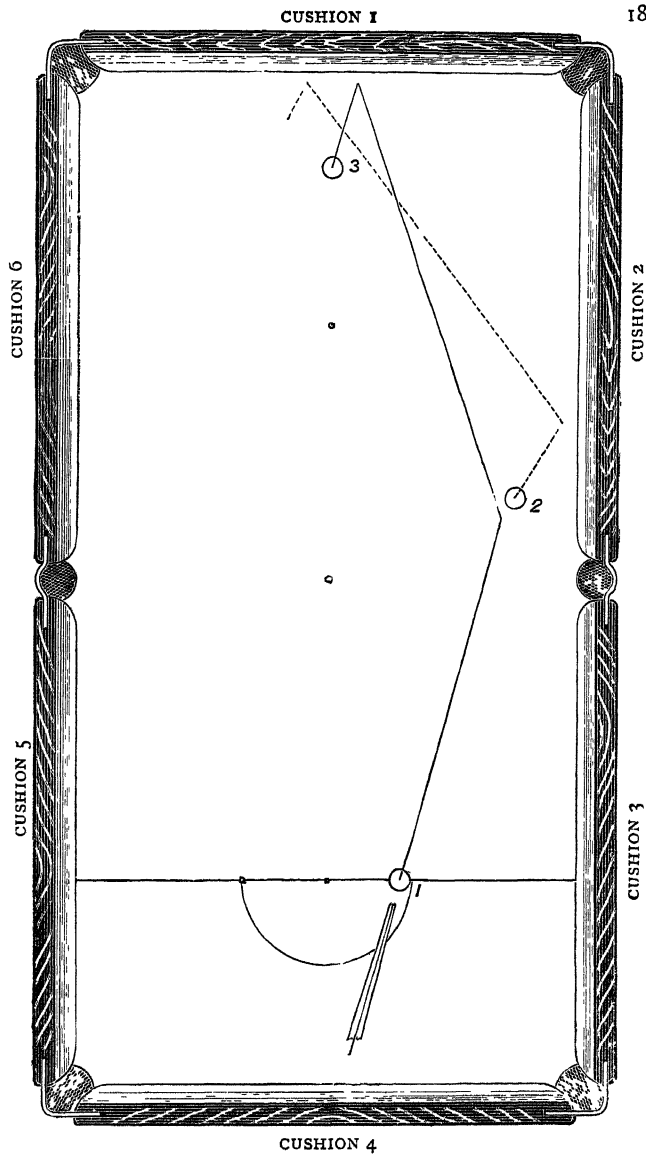


Diagram XIII.

Example B, though not of so common occurrence as A, is also an excellent practice stroke.

Ball 1, $5\frac{1}{2}$ in. from cushion 3, $21\frac{1}{2}$ in from the bottom cushion.

Ball 2, 4 in from cushion 3, 33 in. from the bottom cushion

Ball 3, in front of the left top pocket, 3 or 4 in. from 11. Play a centre ball stroke, about half-ball on 2, with strength to carry 1 to 3—say a free No. 1. Ball 2 will double from cushion 3 and join 1 and 3 near the left top pocket.

In this stroke accidents may happen, and if it be missed by a hair's breadth the adversary will rejoice. Ball 3 may be cannoned into the pocket and ball 2 may also go in; but, if played often, the result will generally be satisfactory and the stroke is therefore a fairly sound one. If ball 3 were the red, it would be prudent to play so as to leave ball 2 somewhat behind and thus reduce the danger of losing it in the pocket. A little consideration will show that the varieties of this stroke are numerous, and that by means of some of them the three balls may be brought to the top of the table

The strokes shown in Diagram XV. exemplify that most useful class of cannons in which the velocity of ball 1, struck often with considerable force, is almost wholly transmitted to ball 2, and 1 retains little more than is required to reach 3. This is achieved in the first place by playing as full as the cannon will admit of on 2, and next by a peculiar use of the cue, which the French term *arrêté* because it is grasped and not permitted to follow the ball more than an inch or two after delivery. The stroke is a stab, and its intensity can be varied by raising the butt of the cue. The point of ball 1 to be struck is, as before, the centre, but delivery instead of being horizontal is at a smaller or greater angle with the surface of the table. The stroke is made as though the striker desired to stab the ball through its centre to the table. It springs away with more life than can be communicated by a horizontal stroke, and parts with that life on impact with 2 more readily, and therefore

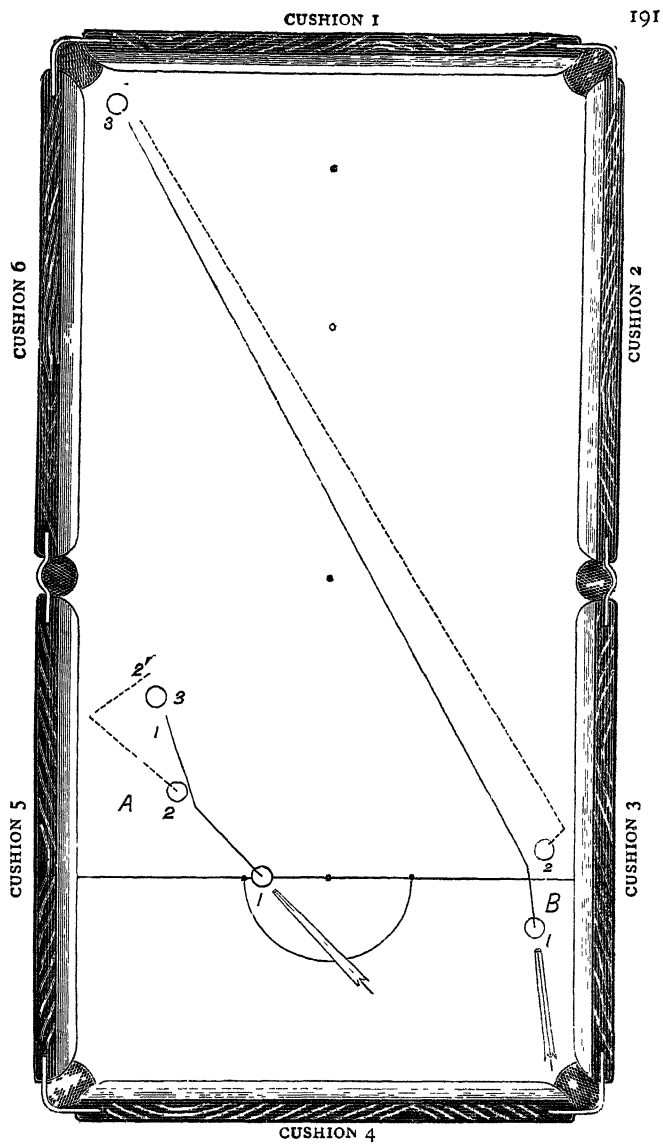


Diagram XIV

expires or comes to rest on reaching 3 with greater certainty. The stab is not required in every case, but where ball 2 has a long path to travel and ball 3 is at a right angle from 2 or less, it cannot be dispensed with. Classified as a stroke, it may be placed between the horizontal centre and the screw, which will be described in the next chapter, whereby ball 1 is made to return towards the point of the cue after impact with 2.

A simple form of these cannons is shown at A on this diagram. No measurements are required, as the position is perfectly simple and equally good for practice when varied according to pleasure. It can be conveniently played when ball 3 is on the pyramid spot, ball 2 about 6 in. from it and rather nearer the player, ball 1 being between the player and 2 near the latter as shown. Play ball 1 nearly full on 2 with strength sufficient to cause its return from the cushion to 3, which 1 should reach but scarcely move. When played as shown across the table the stroke is always a gentle one, and when the balls are close to the cushion from which 2 has to return it must be played very softly indeed. The usual faults made in playing are that 2 is struck too hard and too fine, the result being that the three balls separate instead of coming together.

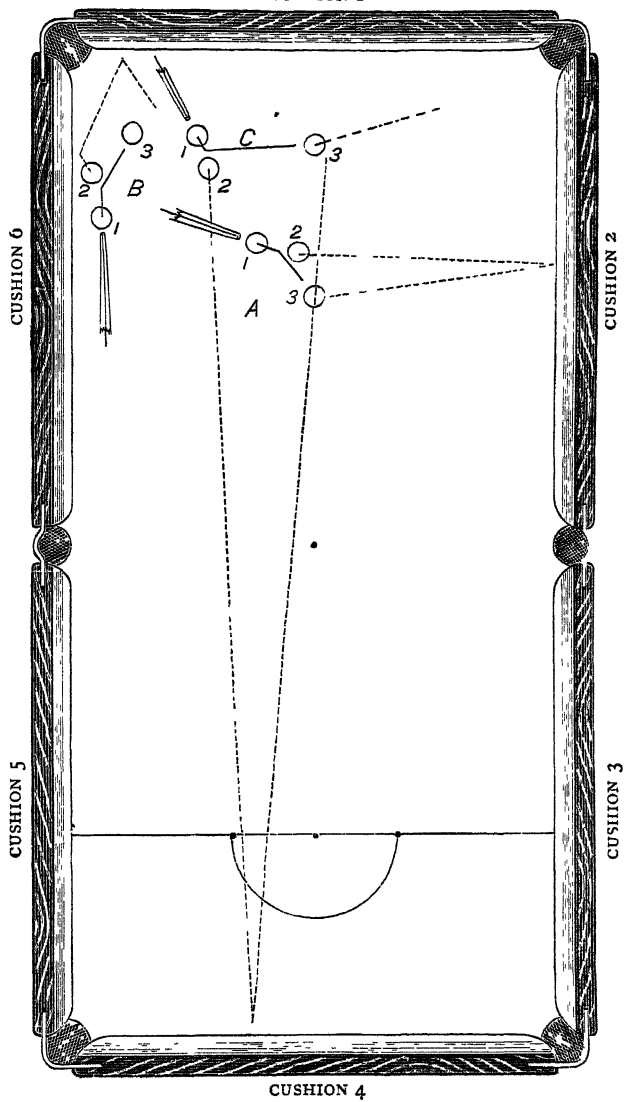
For B, a pretty little stroke useful in turning the corner at the left top pocket, the following measurements will help in placing the balls, which can however be set up from the diagram with sufficient accuracy.

Ball 1, $5\frac{1}{2}$ in. from cushion 6, $22\frac{1}{2}$ in. from the top cushion.

Ball 2, $3\frac{1}{2}$ in. (full) from cushion 6, $16\frac{1}{2}$ in. from the top cushion.

Ball 3, $8\frac{1}{2}$ in. from cushion 6, 13 in. from the top cushion.

Play a gentle stroke on 2 from $\frac{3}{4}$ to $\frac{1}{2}$ to the right so as just to reach 3, 2 will return from side and top cushions, and the three balls will be left together. It is evident that this stroke may be adapted to any corner of the table, an exercise which may be left to the student.



Example C.

Ball 2, 19 in. from cushion 6, $16\frac{1}{2}$ in. from the top cushion ; ball 3 on the spot ; ball 1, 18 in. from cushion 6 and 12 in from the top cushion.

Play a little less than full on 2 with strength to bring it back from the bottom cushion to the neighbourhood of the spot ; ball 1 to travel to 3, which it moves slowly towards the right top corner pocket.

This stroke as exhibited at C is not very difficult, though some moderate execution is required, and an intelligent application of the stab will give more perfect control of the balls. As ball 3 is placed further from 2 and nearer the top cushion, so does the stroke require greater skill and judgment, the stab then becoming more necessary, as the energy or life of ball 1 must expire about the moment it reaches 3, otherwise the success of the stroke is much endangered.

Diagram XVI. shows a position of the balls which at first sight is apt to be regarded with dissatisfaction by the player.

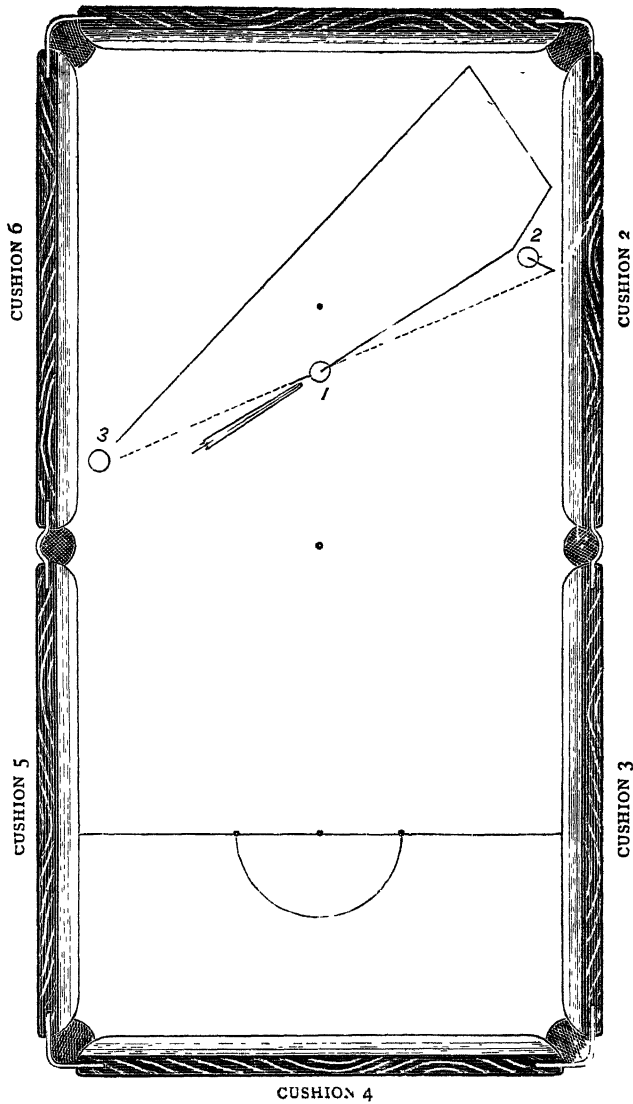
Ball 2 is too near cushion 2 and too far from the right top pocket for a certain losing hazard ; say 28 or 29 in. from top cushion and $5\frac{1}{2}$ in. from the side.

Ball 3 is 3 in. from cushion 6 and 12 in above the middle pocket.

Ball 1 is in the central line of the table, from 9 to 13 in. below the pyramid spot

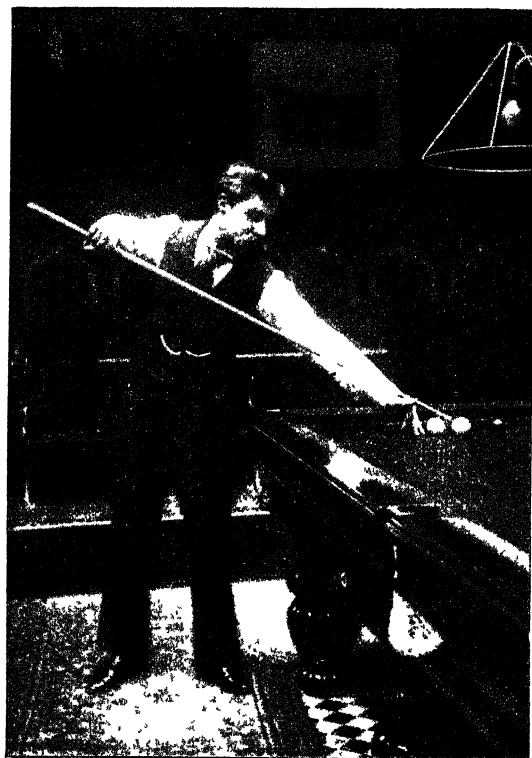
Play No 1 strength finer than half-ball on 2, which strikes cushion 2 and travels towards ball 3 ; ball 1 makes the cannon off cushions 2 and 1, and sometimes off cushion 6 as well.

The danger of this stroke is that balls 1 and 2 may kiss just before ball 3 is reached, the result being disappointment for the player and a good opening for the adversary. In the modern game, however, a man should look for success to skill and enterprise which, though not without risk, lead to rapid scoring, rather than to tactics of obstruction, so dear to the heart of respectable mediocrity. The results of this stroke will be found to vary considerably. Sometimes ball 3



CUSHION 4
Diagram XVI.

will be placed over the left middle pocket with a winning or losing hazard for next stroke. Again, if the cannon is made on the right side of ball 3, ball 1 will travel below the pocket, and the next stroke will probably be another cannon. It is clear that this type of stroke can be modified at will, ball 1 may remain fixed whilst ball 3 is moved up the left side and 2 down the right side of the table, or ball 1 may be shifted a little up or down the central line; the limits being when losing hazards become preferable to the cannon.



High Bridge for a Cramped Stroke

CHAPTER VI

ON THE ROTATION OF BALLS

THE subject of this chapter is a very difficult one to deal with in a manner at all satisfactory, and the writer is conscious that the want of minute knowledge, both theoretical and experimental, must render the task before him formidable in every way. Yet there is no intention of evading it, for the remarks which will be offered for consideration are based on a lengthened observation of the behaviour of billiard balls under various conditions, and will, it is believed, prove of interest, if not of use, some to one person, others to another, even though put forward in an unscientific manner

In most books on billiards the subject is avoided, a chapter (of a page or two) is devoted to side, and those writers who have dealt with it most briefly have probably made the fewest mistakes. An exception, however, must be made in the case of M. Vignaux, in whose 'Manual' endeavour is made, with considerable success, to explain many phenomena in a homely way, and as the observations and deductions therein recorded often agree with those arrived at in this book independently, it is not remarkable that the courage which the Professor has shown in attempting a difficult subject should be admired, and that the skill which has led him to no small measure of success should be praised. Besides, in trying to convey instruction the teacher is much assisted, and the learner finds his task more easy, in proportion as the reasons for orders are understood. A rule whereby a player is desired to use right-hand side for a certain

stroke from baulk to the top of the table, and left-hand side for a similar stroke from the top to baulk may be perfectly correct ; but it is much more likely to be remembered and put in practice at the moment of need if the reason why has been explained and is known. Hence, some space will be devoted to the consideration of rotation, and it may be that when attention is drawn to the various effects, or some of them, due to this cause, a better qualified writer may be induced to study and deal with the subject in a more scientific and satisfactory manner. If this should happen, the remarks now made, however imperfect and conjectural, will not have been thrown away.

It has already been brought to the reader's notice that a ball, when set in motion by the stroke of a cue, does not merely slide forward, but at once commences to rotate round its horizontal axis, which is at right angles to the axis of the cue, or the path of the ball. That is, in addition to the movement of displacement, or movement from one place to another (which can be effected by taking the ball in one's fingers and placing it down in its second position), called by the French 'translation,' there is generated a distinct movement of rotation, which is for the most part latent and invisible till after impact with another ball or with a cushion.

That the motions are distinct is evident ; for a ball or a cube may be so pushed or removed from one spot on the surface of the table to another that no rotation results. Again, the same ball may be made to spin or rotate by the action of the fingers, and dropped vertically on the table, so that no impulse forwards or backwards is communicated, and yet no sooner does the ball fall on the cloth than it will commence to travel in a line at right angles to the axis of its rotation. Hence, both motions may produce displacement or translation, and when both are at the same time active in a ball the path travelled, whether straight or curved, is the resultant of the two movements.

Now at p. 140-1 the divisions of balls were explained, and the



IN OR OUT OF BAULK

same figure will suffice to assist in defining the various classes of rotation used in the game of billiards to effect different purposes at the discretion of the player. There are four main divisions, corresponding to the four sectors into which the lines HB and GD divide the ball.

(1) Forward rotation, or follow, is communicated by striking the ball on the line CH above the centre c .

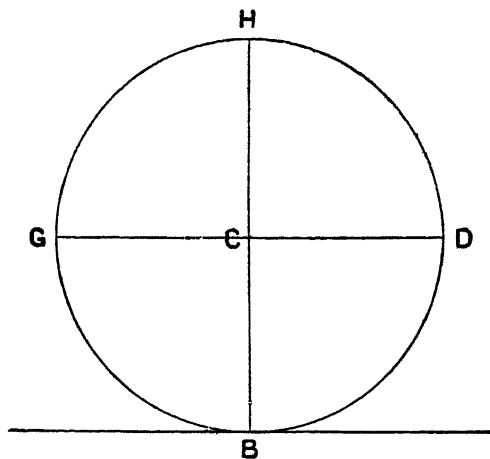


Fig. 1

(2) Backward rotation, retrograde, or screw, is obtained by striking the ball on cB below the centre.

(3) Right side,¹ or rotation round the vertical axis HB from left to right, is attained by striking on the line cD ; whilst

(4) Left side,¹ or rotation from right to left, results from striking on cG .

And these can manifestly be combined; thus, the ball struck in the sector CHD has both follow and right side; struck in cDB the combination is screw and right side; in cGB screw and left side; and in cGH follow and left side. These are the

¹ The Americans term what we call *side* 'English' or 'twist.'

practical divisions for purposes of play, but it must be borne in mind that so long as the cue is delivered horizontally the path travelled is the prolongation of its axis, or a line parallel to that axis, and the effect of the rotation communicated does not show itself, save to a very minute extent, till after impact with a ball or cushion. Then it becomes immediately apparent and often bewildering in the strangeness of its results. Who, for example, has forgotten the feeling of awe with which he first contemplated the result of a well-executed screw, ball 1 striking ball 2 smartly and thence returning to the point of the cue? And to this day the most consummate masters cannot explain some of the strange results whose practical effects are sufficiently well known

Before passing from this figure it may be as well to explain that the maximum of rotation can best be effected, or most side given, by striking at the ends of the diameters *HB* and *GD*, on the principle of the lever being longest at those ends; but practically the limit is reached at the point on either line beyond which a miss-cue would result. Each player will in time find out this point for himself, and it is remarkable how practice improves the power. With it a man can hit clean and sharp further out on the arm of the lever—that is, further away from the centre—than is possible for an untrained person, and it will be found, moreover, that in time and by practice a delicacy of touch and increase of effect are acquired

But what is this rotation, what causes it, and how is it regulated?

The main factor, or at any rate the main reason whereby its effects become visible and are regulated, is friction with the cloth or bed of the table. If balls were perfectly smooth, the bed also being equally hard and smooth, and if they were unaffected by the resistance of the air and the force of gravity, once set in motion they would continue to slide along for ever within the limit of the length of the bed. They would not roll, but would slide as a curling stone does on smooth ice. But the practical condition of affairs is different. In the first place, the

surfaces of the balls, be they never so finely finished, instead of being smooth, are if examined under a microscope found to be palpably rough. The cloth, too, no matter how well stretched or of how fine a texture, is both soft and rough. A ball at rest on it is standing in a little cup, whilst one travelling forms a narrow groove, along which, it is plain, resistance will vary according to its direction and that of the nap of the cloth. If with the nap the friction will be less, if against it more.

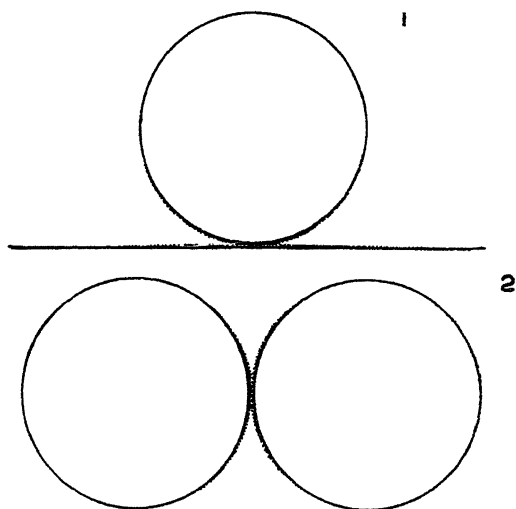


Fig 2

Hence it follows that in considering the motion and rotation of billiard balls on a table, we must picture to ourselves a toothed-wheel working on a toothed-plane, and one toothed-wheel working into another, rather than a perfectly smooth surface on a similarly perfectly smooth plane, or two perfectly smooth spherical surfaces in contact.

The accompanying drawings, in which the roughness is purposely exaggerated, will convey the idea better than much elaborate description. No. 1 shows a ball in contact with the

cloth, and No 2 one ball in contact with another. From these it is easy to realise that a ball rotating has a bite of the cloth, and will travel along it in the direction of the rotation, and also that a ball rotating round its vertical axis brought into contact with another must transmit a portion of its rotation, the effect of which is to make the second ball revolve in the opposite direction, precisely after the manner of one toothed-wheel working into another. Such transmitted side is no doubt very small and difficult to perceive, save in the matter of results which cannot otherwise be accounted for. It is indeed probable that side can in this way be communicated to a third ball provided it be touching the second ball. By its means certain kiss strokes can be made which without the use of side are impossible. The subject is undoubtedly complicated, and the suggestions here offered may be wrong; they are those which, after much consideration, have commended themselves as most in agreement with known facts concerning the rotation of bodies, and as accounting for the behaviour of billiard balls in a manner which is not repugnant to common-sense. Nevertheless it must be admitted that absolute proof of transmitted side can scarcely be said to exist, that many experienced persons deny its existence, and, moreover, it is never safe to jump to conclusions.

Let us now consider the four classes of rotation which have already been defined, and begin with forward rotation or follow. This is the most important of all, for, as will be seen, it is present and active in almost every stroke unless special means are employed to counteract it. It is generated in two ways—spontaneously, and by striking the ball above its centre.

When a ball is struck by a cue in the centre, no rotation is thereby communicated. Its first impulse is to slide along with a velocity and for a distance proportionate to the force employed. But the instant that motion is communicated, resistance to sliding forward is experienced. The ball then is subjected to two forces, one from the cue impelling it forward, and the other a retarding force caused by the friction of the cloth. The impelling force drives *c* in the direction *M*, and the fric-

tion or retarding force acts on B in the direction B N. The point B is thereby retarded, and the result of the two forces is that c travels towards M, whilst A advancing, B being retarded, a rotatory motion is produced whereby A at the top gradually lowers its position till it reaches the bottom and rests on the cloth. It is evident that this spontaneous rotation exists in every plain stroke ; it is separate from the mere displacing or translating force, and has a separate life. One may outlive the other ; an ordinary example of this is when ball 1 is played full on ball 2. When the distance between them is small, little or no rotation has been acquired and the force of ball 1 is transmitted to ball 2, the former remaining nearly stationary, or dead,

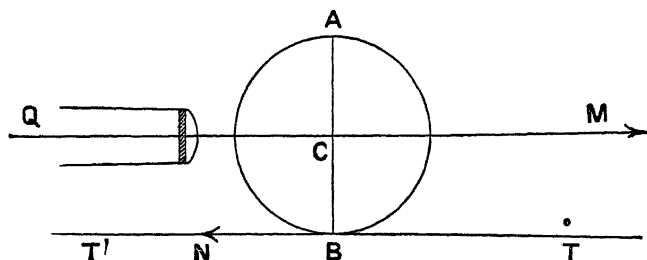


Fig. 3

after impact ; but when there is considerable distance between 1 and 2, rotation is well established and asserts itself after impact, which destroys the life of the force of displacement or translation. Thus ball 1 on impact stops merely for a moment, for rotation coming into play carries it forward on its original path. A very common illustration of this is unpleasantly familiar to young pool players. They cannot prevent their own ball from following into a pocket after a long straight hazard.

But follow can be increased or accelerated artificially, and the object of doing so is to augment the progress of ball 1 after impact. No gain in propulsion results from hitting a ball over the centre, for what rotation gains translation loses, and when there is no obstacle to run or follow through it is a mistake to

strike above the centre, for a ball will travel less truly when so struck, and further, should it encounter unperceived obstacles, such as grit, or dust, or tobacco, the tendency to leap is enhanced by follow, and the result is greater or less deviation from the true path

The chief use, then, of follow is to control deviation and prevent stagnation after impact. When a fine stroke becomes dangerous a follow may not only be safe, but may be played so as to leave a good game. The stroke should be delivered gently, smoothly, and the cue should be held as horizontal as possible, the butt being lowered, and the bridge raised so as to bring the tip opposite the part of ball 1 to be struck. After impact the point of the cue should be permitted to follow on with a flowing motion. Another and at first sight quite different use of follow is to decrease the velocity of rebound from a cushion or from a ball touching a cushion. The reason is that after impact rotation is reversed, and a stroke which reaches a cushion with follow rebounds with retrograde or drag. If played with strong follow, the ball will not improbably leap in the air after impact, and either stop short on reaching the bed or even return towards the cushion. As is perhaps evident from what has been explained, follow is very useful when balls 1 and 2 are so close that little or no rotation can be spontaneously acquired ; its absence is supplied by striking ball 1 above the centre.

The next rotation to be considered is round the same axis—horizontal—as follow, but is in the opposite or backward direction, whereby what we call ‘screw’ and ‘drag,’ the French ‘retrograde,’ and the Americans ‘draw,’ are effected. The point of aim is on the line *CB* (p 199, fig 1), and the lower the ball is struck the greater the rotation, the limit being as usual where a miss-cue would ensue. To ensure striking low, the cue should be made to bear somewhat heavily on the bridge between the thumb and forefinger, and the butt should be slightly raised. The result of the stroke is that ball 1 is forced forward but does not acquire spontaneous rotation, that being counteracted by

the inverse rotation or screw communicated by the cue. If the stroke be played the length of the table close observation will disclose a different behaviour of the ball from that which results from a plain stroke. In the first place, the ball will start for an equal transit or length of path with greater initial velocity, it will slow down much more abruptly, will apparently stop for a moment, and then continue its course till it comes finally to rest. Analysing this path, the first portion is traversed by the ball with inverse rotation and under the influence of a stronger stroke than would have been necessary had it been struck in the centre; the slowing down is the struggle between the screw or backward rotation artificially given and the spontaneous or forward rotation naturally acquired; the momentary check or stop is when the one rotation exactly counterbalances the other, and the ball for an instant slides forward without any rotation; and the final part of the course is when (the backward rotation being dead) the spontaneous rotation has conquered, and in turn dies with the force of displacement or translation. That is what is seen when a master of the art plays with drag. He uses it to overcome irregularities in the ball or bed, and is by its means enabled to combine the advantages of a strong and of a gentle stroke. If ball 1 cannot be trusted the length of the table for a slow hazard or cannon, the player strikes it comparatively hard with drag; the ball then runs fast over the greater length of its course, but pulls up in the manner and for the reasons above described, and reaching ball 2 with gentleness does not displace it to any great extent.

That is the complete stroke; but if it should happen that ball 2 is so near ball 1 that impact takes place before the backward rotation is dead, if the stroke be full the whole of the forward motion (translation) is communicated to ball 2, and ball 1, which has apparently stopped for a moment on the spot which ball 2 occupied, will return towards the point of the cue by reason of its inverse rotation or screw. The result is what is known as a 'screw-back stroke.' The more full ball 1 is played on ball 2, the further will that ball travel and the greater will be

the recoil and screw-back. The finer ball 2 be taken, the less velocity will be imparted to it and the less will be the return of ball 1. Screw-back is not possible, unless, perhaps, the balls are very near each other, if ball 2 be struck half-ball or finer.

When the student has acquired confidence that he can play ball 1 on ball 2 direct and full and screw-back, he may with advantage study the various angles at which ball 1 will come off ball 2 when hit at certain divisions between full and half-ball. A convenient mode of practising these strokes is to place ball 2 on the baulk line, and ball 1 6 in. to 8 in. below it.

Thus, if ball 1, struck three-quarters low, or wherever the player can communicate most screw, be played full on ball 2, the latter will travel up the table parallel to the cushion, whilst ball 1 will return over the position it occupied, also parallel to the cushion, in the direction of the bottom cushion. The distance travelled will depend on the strength and truth of the stroke as well as on striking ball 1 so as to obtain the maximum reverse rotation. That is the limit in one direction of the screw stroke, the other limit is to aim at the edge of ball 2, ball 1 being, as before, struck three-quarters low. In this instance the path of the latter after impact is along the baulk line, or, in other words, practically perpendicular to its path before impact. That is what is known as a 'right-angled screw,' a most useful stroke to master, as is evident after a moment's consideration. In the first place, if ball 3 were situated anywhere along the baulk line, a cannon becomes a reasonable probability; and next, if there were a pocket at either end of the baulk line, the losing hazard would be far from impossible. The way to acquire confidence in this right-angled screw is to begin softly, but always endeavouring to give ball 1 the maximum of screw. The beauty of the stroke is that it is impossible to give ball 1 too much screw, and that its path, when struck truly, must lie on the baulk line; if it leaves the baulk line and goes up the table, then ball 2 has been struck finer than half-ball, or ball 1 has had insufficient screw given, or both, if it comes back from the baulk line, ball 2 has been struck fuller than half-ball. So

here, again, is an example of a practice stroke which records exactly the causes of failure, thereby saving much time in fruitless inquiry, and pointing directly to the required remedy.

Now, having acquired the power of bringing ball 1 back from ball 2 in a direction perpendicular to the baulk line, and also of screwing off ball 2 along the baulk line it follows that by subdividing ball 2 between full and half-ball, and by regulating the strength used, the path of ball 1 after impact can be foreseen, and it may be made to travel thereon with some certainty. Thus 1 played full on 2 returns towards A; 1 half-ball on 2 travels towards L or B, when struck fuller than half-ball it

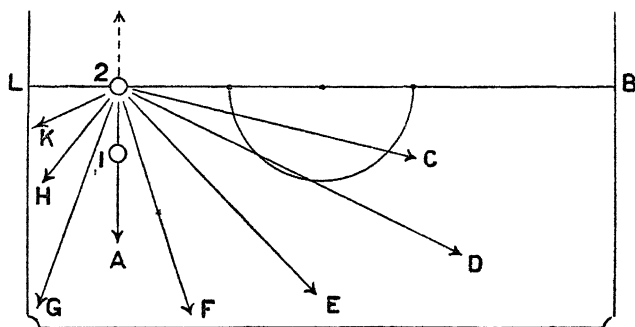


Fig. 4

returns towards C or K; fuller still towards D and H; and so on in succession towards E, F, and G. Now the acquisition of these strokes is not nearly so difficult as it seems, specially when a cannon is played for, and the power and confidence acquired by knowing that wherever a ball is situated—for example, anywhere on or near the various lines drawn on fig. 4—there is a reasonable prospect of scoring, are of great advantage

In the example just explained ball 1 is supposed to be near ball 2, say from 4 in. to 8 in. distant; when they are further apart the stroke must be played with greater strength, and ball 2 must be struck fuller to compensate for the tendency of ball 1 to travel past the position which was occupied by ball 2 before

the screw takes effect. As the distance between the balls increases so must the strength of the stroke be greater, and so also must ball 2 be struck more nearly full.

This question of regulating the strength of screw strokes is of great importance. The general rule is as above stated, but there are many instances when a player, to obtain position, will vary the stroke. Thus, in order to make ball 2 travel he will play fuller on it, reducing the amount of screw, though the stroke might be equally certain if played gently, half-ball, but with more screw. There must be no slavish adherence to any one division of ball 2. the screw must be made at will off a full, fine, or intermediate ball, and the strength must be varied to suit the division of the ball, and the distance between the two balls.

At the risk of incurring the charge of repetition, let it be further explained (for this elementary fact should never be forgotten) that the reason why greater strength and more screw must be used as the distance between the balls is increased is because of the tendency ball 1 has to develop rotation in the direction of its path. When the balls are near each other but little spontaneous rotation can be acquired, and therefore ball 1 need not be struck hard or very low, when they are very near, the spontaneous rotation is so slight that in order to screw it is unnecessary to strike ball 1 below the centre. On the other hand, when the distance between the balls is increased, the opportunity for acquiring forward rotation or follow is greater, and greater, therefore, must be the strength and screw used for its conquest. That being so, it is further necessary to abandon attempts to screw off the finer divisions of ball 2. Endeavours to do so will end in failure, for the needful strength will carry ball 1 past ball 2 and the screw will be overcome. Hence the necessity for playing more and more full on ball 2 as the strength of stroke is increased. The fuller the stroke the more is forward motion transmitted to ball 2, and the less is the screw imparted to ball 1 interfered with. These matters, which are very difficult to deal with in a lucid way on paper, can be plainly demonstrated

on the table without much trouble, there the student should repair with his instructor, and soon what may seem confused and useless in the above remarks will appear plain and of great value.

The consideration of regulated screw leads to the insertion of fig. 5, in which a class of strokes of common enough occurrence, but little relished by players whether amateur or professional, is illustrated. They are intermediate between the path of a forcing stroke and that of the right-angle screw. Now the latter, though decidedly difficult when the balls are far apart, say 2 ft. or so, yet admits of some certainty in playing, for it represents about the maximum of most men's power, but the intermediate strokes, though they require less execution, are yet oftener missed, because the player has no definite measure of them, no guide or clue to which he can trust.

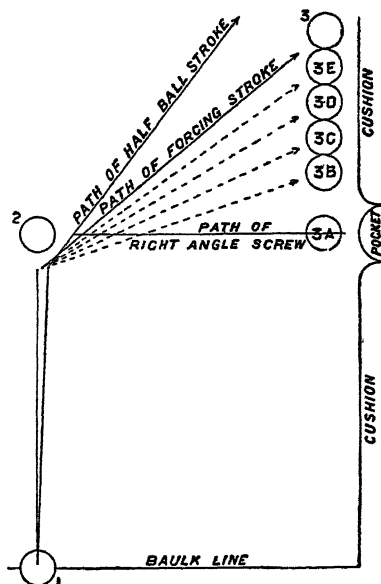


Fig. 5

If the paths represented from ball 1 to ball 2 and then to ball 3 be those of a hard forcing stroke, and the paths 1 to 2 and 2 to 3A those of a right-angle screw, the strokes referred to lie between the two, and may be represented by the dotted lines from 2 to 3B, 3C, &c. The balls may be set up as shown; ball 1 on the right spot of the D; ball 2 at the same distance from the side cushion line and opposite the centre of the middle

pocket ; ball 3 anywhere between the pocket and the limit of a forcing stroke in the positions marked 3B, 3C, &c ; or ball 1 may be advanced nearer to ball 2, in which case the strokes are easier. In either case practice at these intermediate angles will not have been thrown away if the remarks and advice respecting screw be appreciated and followed. Do not forget that when played with strength ball 1 will pass beyond ball 2 before the screw takes effect.

In practising the straight screw-back it is advantageous to keep the cue exactly in position after the stroke, which, if true, will result in bringing ball 1 back to the tip. Also the behaviour of ball 2 after each stroke should be noted, in order that when playing in a game its position may be approximately foreseen. Always chalk the cue before attempting a screw.

Rotation round a horizontal axis having been considered, it is necessary now to examine side, or rotation round a vertical axis. This is communicated by every stroke of the cue which is not delivered precisely on the vertical line *HB* (fig. 6), and is, as may readily be conceived, generally applied unintentionally. In fact, much of the preliminary practice has been recommended in order that the power of striking a ball without side might be acquired. Still, when intelligently used, side gives great additional scope to a player and will well repay attention and study. To discuss right side and left side separately is unnecessary, for the one is simply and solely the reverse of the other.

Side, or rotation round the vertical axis, does not convey to a ball a movement of displacement or translation ; on the contrary, its tendency is to bring the ball to rest, precisely as a top when thrown with heavy spin at first gyrates or travels a little, but soon comes to rest, or sleeps, whilst revolving at a great rate. Hence it follows that some compensating strength has to be used when playing with side.

Now, the student cannot have got so far, supposing that the various strokes have been practised, without having acquired some knowledge of the effect of side. He has learnt, for

example, that the more out of the centre his ball was struck, the more did the angle of reflexion vary from the angle of incidence ; if struck on one side, the angle of reflexion was enlarged ; if struck on the other side, it was diminished. Side also makes some, though less evident, modification in the angle of deviation after impact with another ball. The proper mode of communicating side to a ball by means of a cue must now be considered. $G H D B$ is a ball standing on the table $T T$; $H B$ is its vertical axis, c its centre. E and F represent the cue tips

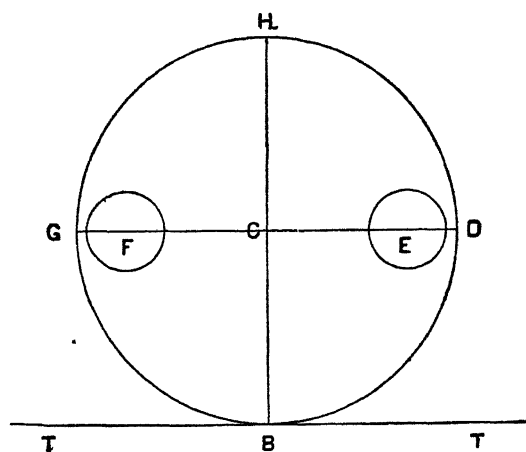


Fig 6

at the moment of striking the ball : E for right side, or side which tends to take the ball towards the right, and F for left side, which will carry the ball to the left. It will be observed that the cue is delivered on the central horizontal line, for on it the maximum of rotation round the axis $H B$ can be given ; in other words, the height of the stroke is precisely the same as that for a plain or true centre stroke, and is equal to half the height of the ball.

The next point is the proper alignment of the cue. In a

plain stroke it has been shown that the path of ball 1 previous to impact is the prolongation of the line of the cue's axis. For a side stroke, the point of aim being the same, the only difference is that ball 1 must be struck on the side instead of in the centre. Hence, to preserve the same path, the cue's axis must be parallel to that in the plain stroke and distant from it in proportion to the amount of side to be given.

Fig. 7 illustrates the chief points connected with side strokes, and admits of comparison between them and an ordinary plain stroke. Ball 1 played half-ball plain on ball 2 travels the path shown by the continuous line 1 1' 1'' and 1''', and the angle at which it comes off the cushion is nearly equal to that of approach. The position of the cue is the central one on the prolongation of the path 1 1'. The same stroke played with right side is thus effected. the cue is moved to the right, its new axis being parallel to the original axis. The stroke is delivered in precisely the same way and in the same direction, save that the point of ball 1 struck by the cue is to the right of the centre. Ball 1, if struck with the strength of a full No. 1 or more, travels practically the same path until it strikes ball 2, after which it deviates slightly to the right, following the path marked by dot and dash alternately, and reaches the cushion at R, whence it flies off at an enlarged angle in the direction of R'. Right side for the stroke figured increases the velocity of ball 1 after impact with the cushion, from which it shoots perceptibly faster than does a ball plainly played. Hence, this side is termed direct, being given in the direction that the ball is intended to travel.

Played with left side, the cue is shifted to the left of the centre, but is still parallel to the original direction. As before, on delivery of the stroke ball 1 travels to ball 2, but after impact follows the dotted line 1' L L', returning from the cushion at once more perpendicularly and with reduced speed, the left side with which ball 1 is charged tending to reduce velocity, specially after impact with the cushion. In respect to this stroke, left side, conveying as it does rotation in a

direction contrary to that of the ball's path, is termed reverse. Of course, if the other side of ball 2 were played on, the left side would become direct and the right side reverse.

There, in a nutshell, lies nearly all that is essential in the matter of side. A man with ordinary powers of thought can for himself apply the lesson either to cannons or to losing-hazards, and nothing but practice, as far as possible under the supervision of a master, will suffice to produce the confidence and certainty which is necessary to good play. Be careful about the alignment of the cue ; see that the left hand, which forms the bridge, is so placed that the part of forefinger and thumb on which the cue lies is precisely opposite the point on ball 1 to be struck, and as there is special danger of a slip or miss-cue when much side is used, never neglect to chalk the cue carefully before the stroke. Attention to this, though it seems but a small and self-evident matter, will save many a game and much temper.

There are, however, certain other matters connected with rotation which, though not so important as what has already been explained as far as the game of billiards is concerned, are yet of considerable interest, partly as they affect the game, but chiefly in so far as they may add to our knowledge of the various forces which concern a ball in motion. Amongst these is the side which may be acquired from friction with the cushion. The probability that such side is so acquired is understood, but the conditions are little known. M. Vignaux remarks that it depends on the angle of impact, on the velocity, and on the strength ; and he gives as an example a plain stroke played gently in a corner of the table, when the ball always has a tendency to come off at a diminished angle of reflexion, specially when the angle of incidence is about 45°. The side acquired is probably greatest when a ball is played along and touching a cushion ; if played from baulk up the left cushion the tendency would be for the ball to acquire right side, and up the right cushion left side ; but all such strokes are complicated by the much more important friction with the cloth on the bed of the table. It is unnecessary here to speculate further on a matter

which so slightly influences the game. Of vastly greater significance, though its action is still most imperfectly apprehended, is the effect of the nap of the cloth on the rotation and path of a ball. Amateur players scarcely understand the subject at all, and no doubt the habitual strength with which they play in a great measure destroys or smothers the effect of the nap, which tells more when the execution is delicate. There is also another reason why they are ignorant of its effect, which is that markers, to please the great majority of their patrons, smooth and iron away the nap in order to make the table faster. By this means they ruin it for the very few who can play, for without plenty of nap the slow screws and gentle side strokes will not tell, the ball, so to speak, cannot obtain a bite or grip on the cloth, and the result is that strokes which should be played softly, and from which the position of the balls can be foreseen with some accuracy, have to be forced, and an ignorant hard hitter may on such a cloth defeat a player of a much higher class. Thus the common fault of amateurs, in attempting by strength results which should be effected by skill, prevents them from acquiring a practical knowledge of the use of nap, which is consequently sacrificed, to the detriment of the game. It is hardly an exaggeration to say that there are but few tables in London clubs the cloths of which are in fit condition for play.

Now, though the professional scarcely understands better than the amateur why the game can be more scientifically played on a cloth with nap, yet from practice, and because of his habitually gentler touch, he prefers a slower table and a cloth with proper nap. For all serious matches a new cloth is used; and in some cases when the game is very long, extending for two weeks, a condition is made that one player shall supply the cloth for one week and the other for the next. Of course there is a limit to the amount of nap which is desirable; it is quite possible to have a cloth which is too coarse and rough, but the usual mistake is the other way. Persons are apt to think that the more friction is reduced the better; but it

is not so, and even an average club amateur would find if he tried to play on glass or ice how impossible many ordinary strokes would become

In a general way, in very delicate strokes side should be reversed when playing against the nap. Many examples can be shown, and a good professional will easily set them up on the table. One may be mentioned here, as it affords an excellent illustration of the general principle. If ball 1 be in baulk, almost touching the left cushion, and it be desired to run a *coup* in the left top pocket, a gentle stroke with side next the cushion, or left side, will cause the ball to hug the cushion and fall into the pocket. But reverse the stroke, play from the top of the table down the same cushion, if cushion side, or right side, be used, the ball will run fairly straight as long as the forward force (translation) overcomes or neutralises the side; but whenever the latter can assert its power the ball will show a distinct tendency to leave the cushion altogether. It will even strike the bottom cushion 6 in. away from the side cushion, and return towards the latter by reason of the side. Play the same stroke with left side—*i.e.* side away from the cushion—and as soon as the side tells the ball will most distinctly hug the cushion, and if repelled from it will endeavour to return again. At present the full effect of playing with or against the nap is neither understood nor practised, but it has attracted attention, and the more skilful and thoughtful players are studying and utilising its effects. It is sufficient here to notice a refinement of play from which considerable development may confidently be expected

Many diagrams are unnecessary for this chapter, which is rather an essay or series of suggestions on matters connected with rotation than part of a manual of billiards; examples of following, side, and screw strokes will be dealt with in the next and subsequent chapters. Still, practice is useful at this stage, and some strokes are accordingly indicated. The opening stroke of a game may be taken as the first example. Place ball 1 in baulk on or close to the baulk line A B and at a convenient

distance to reach, say, the centre spot, or, perhaps better still, an inch or so beyond it, in order to avoid playing from a spot which, however thin, must on a new cloth, at any rate, be raised above the general level. If the player stands at A, he should strike ball 1 with right side and strength sufficient to take it to the cushion above B and back as nearly as possible to the central longitudinal line of the table, or below the centre baulk spot, thereby securing a good position, marked P, and making his opponent's next stroke, also usually a miss, as difficult as possible. If played from B, left side must be used, and the stroke must be practised till complete confidence as to angle

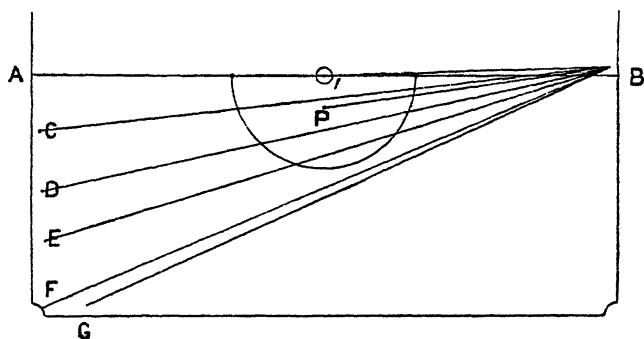


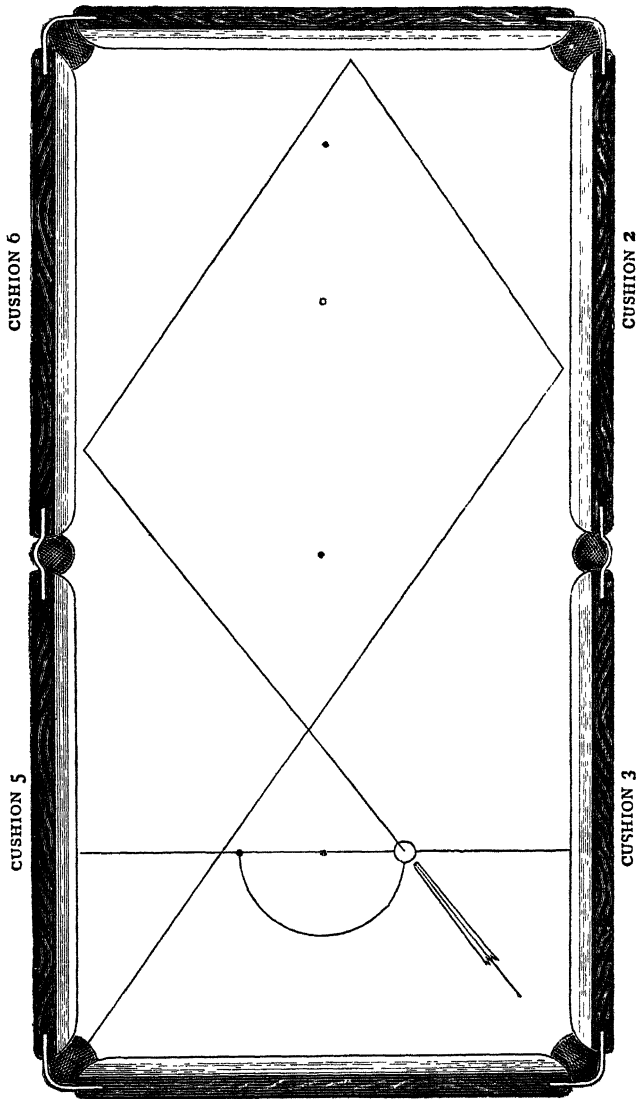
Fig 8

and strength is acquired. Then marks should be set up at C, D, E, F, and each stroke practised till ball 1 can be brought with fair accuracy to follow the lines B C, B D, B E, and B F, which, as is seen from the figure, will result in a *coup* in the left bottom pocket. At first this is about the maximum of side a beginner can command, but after some practice he will succeed in striking the bottom cushion near G, a stroke which is useful when a ball is left over the pocket, as a losing hazard may be made with sufficient strength to bring ball 2 out of baulk. These strokes should be played from B as well till some certainty is acquired. They are very useful for disturbing a double baulk, and even

for scoring from one, and a good break so made has a somewhat disconcerting effect on the adversary

A side stroke played back to baulk is shown in Diagram I. Place ball 1 on the right corner of the **D**, and play on the left top cushion 14 in. above the middle pocket with a little right side a free No. 2 strength, the ball should follow approximately the course indicated, and run into the left bottom pocket. Similarly played from the other corner of the **D** to the right top cushion, the ball should fall into the right bottom pocket. These strokes are often useful in a game when a double baulk is given and one or both balls are over a pocket. A little modification too, either by aiming higher or lower on the top side cushion, or by using more side, makes this stroke available for cannons in the neighbourhood of the bottom pockets, and for disturbing the balls when the adversary has left a certain score for himself in the corner

The next stroke is also well worth acquiring. It is differently played by different people, but the main point is to bring the ball on to the bottom side cushion a few inches below the middle pocket. If that is done the path thence is practically a straight line to the centre of the bottom cushion. It is interesting to practise thus: place balls 2 and 3 as shown in Diagram II on the central longitudinal line of the table, ball 3 near the bottom cushion, and ball 2 immediately above, but not necessarily touching it. Set ball 1 on the baulk line about the centre spot, play at the side top cushion, 30 in. from the pocket, a free No. 2 with a little direct side. The stroke can be played off either right or left side top cushion, and should be tried from both. It can also be made from the corner spot of the **D**, aiming at a point 15 in. above the pocket, if the stroke be played more gently and the side correctly regulated. It follows, therefore, where there is so great possible divergence in the manner of play, that each person should find out that mode which best suits him, and practise till confidence is gained. The cannon may be made in many ways, sometimes as indicated, on other occasions ball 1 will strike the bottom cushion first



CUSHION 4

Diagram I.

and thence cannon from 3 to 2, and so on, showing that there is considerable latitude for error in striking. Once the player realises the path of ball 1 from below the middle pocket to the centre of the bottom cushion, it is clear that many possibilities of scoring cannons in baulk are opened. The reader can no doubt supply them for himself, and it is well that he should take the necessary thought to do so; but one example is indicated. If balls 2 and 3 occupy the positions 2' and 3' the same stroke will probably result in a cannon. Mr. John Roberts often uses this stroke or a modification of it, and when the result is successful the delight of the spectators is unbounded, they applaud and regard him with the awe and respect due to supernatural power. Yet there is nothing remarkable in the stroke. Mr. Roberts knows approximately the course of the ball after it has struck the bottom side cushion, he sees that ball 2 is on or near that path, and therefore that there is a fair certainty of his hitting it, and if he does so on the proper side the cannon on 3' or 3'' is probable. It is well to be conversant with strokes of this nature, though as a rule they should only be resorted to when clearly necessary, and never used simply to show off or to bring down the gallery.

Other examples might obviously be added, but these are sufficient to illustrate the principle, which is, when learning the stroke, always play it as nearly as possible in the same way and under the same circumstances. The result is that the eye becomes familiar with the tracks of the ball, and then moderate ingenuity and observation will serve to guide the player when he may make use of his knowledge to advantage in a game.

This chapter, wherein are raised interesting and suggestive questions which may hereafter be more thoroughly investigated and applied to the game, may be appropriately closed by an illustration, the idea of which is borrowed from 'Modern Billiards,' the text-book of the American game, prepared by the Brunswick-Balke-Collender Co. of New York.

Place fig 9 so that A is in position for reading, and *follow* is illustrated. Reverse it, bringing B into position, and

screw or *drag* is shown. Bring c into position for reading, and a *side stroke*, in this case right side, is represented, and if this

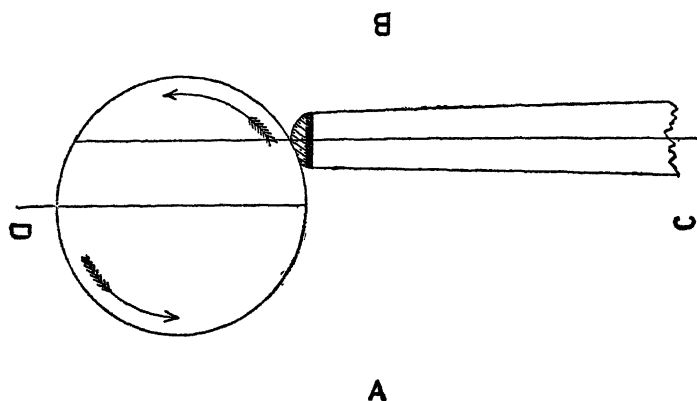


Fig. 9

be reversed, D being brought into position, the *massé* stroke, which will hereafter be explained, is seen.

CHAPTER VII

MISCELLANEOUS STROKES

UNDER the above heading it is proposed to describe a variety of strokes many of which may be played in different ways, according to the position which it is desired to leave. Some of these are genuine strokes, whether plain or whether rotation is applied ; others partake rather of the nature of tricks, but as they do not contravene existing rules they must be treated as legitimate, and their effect on the game is so important that they must not be neglected in any manual. Following strokes belong to the former class, and are of much importance to the game , the principle involved in playing them was explained in the last chapter. The number of such strokes which may be set up on the table is infinite, whilst the examples here given are necessarily few. They have, as in other cases, been selected after much thought, and being in some instances strokes commonly met with in a game, similar diagrams will be found in other books on billiards. Yet this does not involve plagiarism, for in many instances repetition cannot be avoided, as will be apparent when the spot stroke is described.

Endeavour has been made to give examples which may readily be varied at the will of the player, and so that slavish adherence to the measurements given may be unnecessary. This is important, for not only do tables vary slightly in make, but persons vary the manner of measuring. The diagrams, as before, must simply be considered approximate, but are, it is hoped, sufficiently correct and intelligible to enable a careful reader to set up the strokes when disposed for practice.

Diagram I, stroke A.

Ball 1 : 34 in. from cushion 2 ; 23 in. from cushion 1.

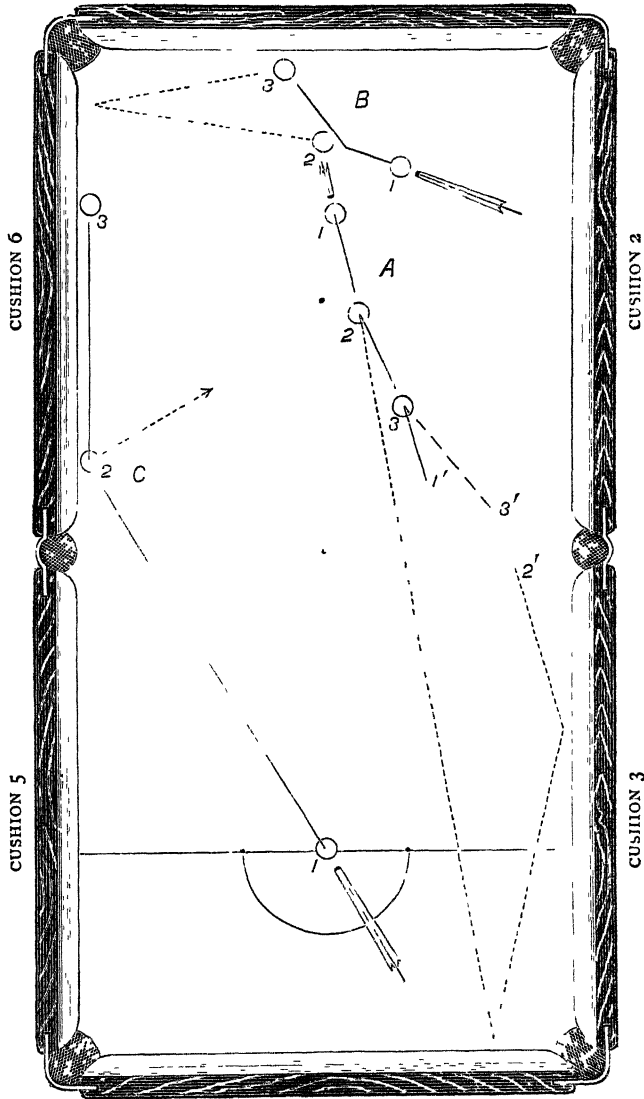
Ball 2 : $30\frac{1}{2}$ in. from cushion 2 ; 37 in. from cushion 1

Ball 3 : $24\frac{1}{2}$ in. from cushion 2 ; 50 in. from cushion 1.

Strike ball 1 one-half above the centre, a free No. 1 strength, play nearly full (between three-quarters left and full) on ball 2, and cannon gently on ball 3 ; ball 2 will follow the course indicated or some modification thereof, and after contact with two cushions rest near the middle pocket, ball 3 will also be driven gently in that direction, and the situation of the three balls after the stroke may be as indicated by the figures 1', 2', and 3', leaving, as is evident, an excellent opportunity for further play. Played fifty times, this stroke may never result twice precisely alike ; yet it is scarcely possible to make the cannon and fail to leave a good opening. That is one beauty of the stroke. Even if, as will happen occasionally, ball 1 cannons fine on ball 3 (which it may easily do in a slight variation in the stroke) and runs into the pocket, ball 2 comes up from the bottom cushion and there is a fair chance of scoring from baulk. There may, of course, sometimes be an unlucky leave, but if the stroke be played with freedom this will rarely happen. The general fault made in all following strokes is to play too fine on ball 2, specially when some strength is used ; hence it is prudent to play what seems to be rather too full. This should never be forgotten ; ten strokes are missed because they are played too fine for one that fails because it was played too full.

Another set of measurements which may be substituted for those given, and which will exhibit a somewhat similar stroke, are here appended. They are taken from the same cushions, which are not therefore again indicated

Ball 1, $33 \times 27\frac{1}{2}$ in. ; ball 2, 31×36 in. ; ball 3, $20 \times 52\frac{1}{2}$ in. This stroke and many variations of the same type will suggest themselves to the player, and may with much advantage be practised. At first sight position A might seem to an amateur a rather unfortunate conjunction of the balls, yet see what an excellent opening may be left in one stroke ! It is the power to



CUSHION 4

Diagram I

recognise such situations and to profit by them which makes the great difference between players

Diagram I, stroke B.

No measurements are needed. Ball 2 is on the spot, and balls 1 and 3 as indicated. Ball 1, struck slightly above the centre, aimed at ball 2 about $\frac{3}{4}$ right, medium No. 1 strength, will cannon on ball 3 and scarcely disturb it, whilst ball 2 will return from the side cushion and the balls will be gathered about ball 3. This is a very common position from which endeavour is made to start a series of nursery cannons, but if this is not desired, and if ball 2 be the red, then a winning hazard to the left top pocket will leave a good opening for continuing play at the top of the table.

When balls 2 and 3 are touching the cushion, as shown in Example C, ball 1 being in hand or suitably placed on the table, the cannon can best be made as a simple following stroke, because aim is easier when no side is used.

Play thus: Ball 1, $\frac{1}{2}$ to $\frac{3}{4}$ high, No. 2 strength full on ball 2, which will escape in the direction shown by the dotted line, whilst the follow will cause ball 1 to run up the cushion and make the cannon. The stroke may be played with left side and slower, with the advantage that the position of the balls afterwards may be roughly foreseen, and that if the cannon be missed direct it may be got off the top cushion. If the losing hazard into the left top pocket be desired, then left side must be used, for the pocket is as blind as possible, and the side is necessary not so much to keep ball 1 close to the cushion on its way to the pocket, as to cause it to enter the pocket after contact with the shoulder of the top cushion. For the cannon, the further ball 1 is from ball 2 the safer is it to dispense with side and trust to follow.

Diagram II. shows types of losing hazards made by use of follow. Example A may be set up by eye, measurements not being required. Play ball 1, striking it about one-half left and over rather than under the height of its centre; impact with ball 2 should be about three-quarters left or fuller, and the latter ball

will take a course somewhat as indicated by the dotted line, on which it is evident that once out of baulk there is a considerable margin as regards strength within which the ball is left in play. If there is a heavy nap on the cloth, and if for some reason it may be desired to play this stroke very gently, the reverse side may be used, ball 1 being struck one-quarter right. The side acting against the nap and outliving or predominating the forward motion (translation) will powerfully draw the ball into the pocket. It is understood, of course, that the reverse side is only used when playing against the nap of the cloth.

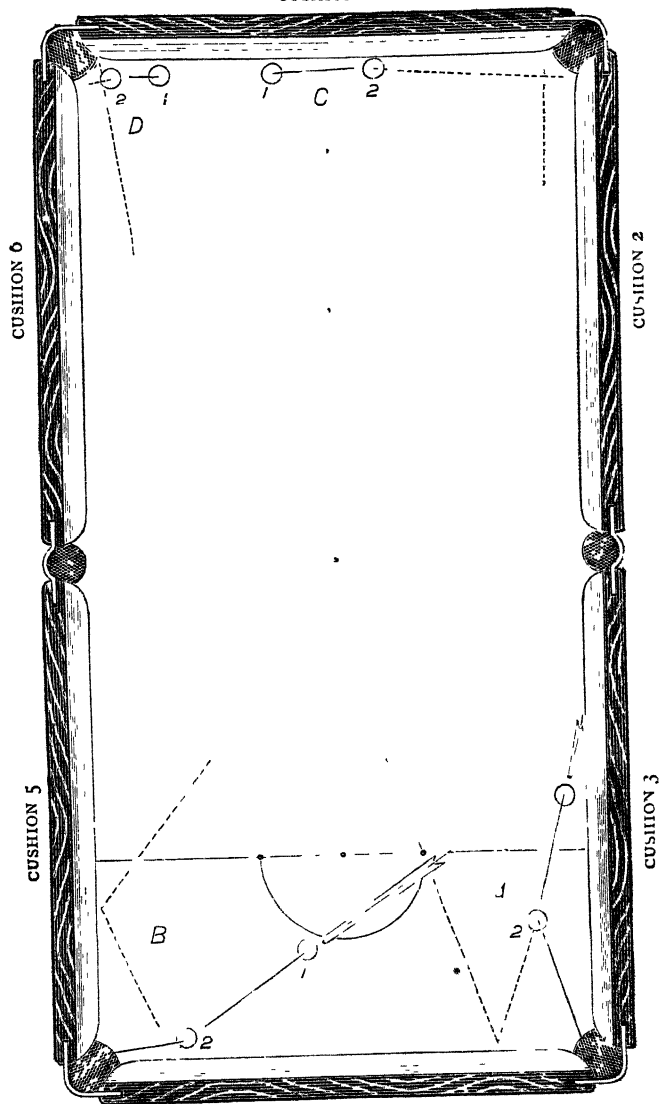
Example B.—Ball 1 : 30 in. from cushion 5, 15 in. from cushion 4. Ball 2 : 12 in. from cushion 5, 3 in. from cushion 4. This is a useful stroke for practice, and may be played in many ways, either without side or with it, either gently or with considerable freedom, according to the position in which it is desired to leave ball 2.

For a plain stroke deliver the cue medium No. 1 strength on ball 1 rather over centre than under, striking ball 2 three-quarters right or fuller; ball 2 will rebound off two cushions towards the centre of the table, leaving the path of ball 1 to the pocket clear. This stroke may be varied by advancing ball 1 on the line 1, 2; but as the distance between the balls decreases strength should be reduced and follow increased, the reason being that there is less space within which ball 1 can develop rotation, which, therefore, must be artificially supplied. Ball 1 may be retired on the same line, in which case the stroke is plain—*i.e.* the cue is delivered on the centre of ball 1.

It may also be played with side, which has two effects, both beneficial. If ball 1 be struck one-half left on ball 2, as before, nearly full, the side used tends to prevent the common error of playing too fine on that ball, and further it enlarges the pocket, or, in other words, will cause ball 1 to drop into the pocket even if it may have touched the dangerous shoulder, as that corner of the cushion is called which partly blinds the pocket.

As a variation of this stroke, place ball 1 30 in. by 13 in., and ball 2 12 in. from cushion 5, and touching the bottom cushion—*i.e.* ball 1 is moved 2 in. nearer the bottom cushion and ball 2 is set touching it, the other measurements being unchanged. Play with strong left side, striking ball 1 above the centre, impact with ball 2 as before. The stroke may be played with almost any strength desired, and the distance between the balls may be varied; the usual error is to play too fine on ball 2, probably from forgetting to allow for the difference between the points of impact and of aim. As certainty is acquired ball 2 may be placed further from the pocket, when the stroke, though otherwise similar, requires greater accuracy.

Example C is not of uncommon occurrence in a game, and is specially useful when 2 happens to be the adversary's ball which would be lost for play if dropped into the pocket. By playing a free stroke with strong left side full on ball 2, the latter is driven along the cushion, catches in the shoulders of the pocket, and travels down the table, leaving an open path for ball 1 to the pocket. Ball 1 should be struck above the centre to secure follow, and with plenty of side, to cause it to cling to the cushion. The stroke is an easy one, soon acquired; but the same can scarcely be said respecting Example D, which, though merely a variation, yet requires more judgment and accuracy. The difficulty, of course, is how to give ball 2 time to take the corners of the pocket and get out of the way. Solution is simple, and might be correctly arrived at by a careful student who has read thus far, but the stroke requires some neatness, and time and temper will be saved by watching an expert and by playing before him. It is far from easy to describe such a stroke so as to make its execution by another person certain; all that will be said here is that, to give ball 2 the required time, ball 1 must after impact travel very slowly, whilst ball 2 has considerable velocity, and this is effected by delivering the cue slightly under the centre. If it be struck too low or too sharply, it will stop altogether; and if struck true



CUSHION 4

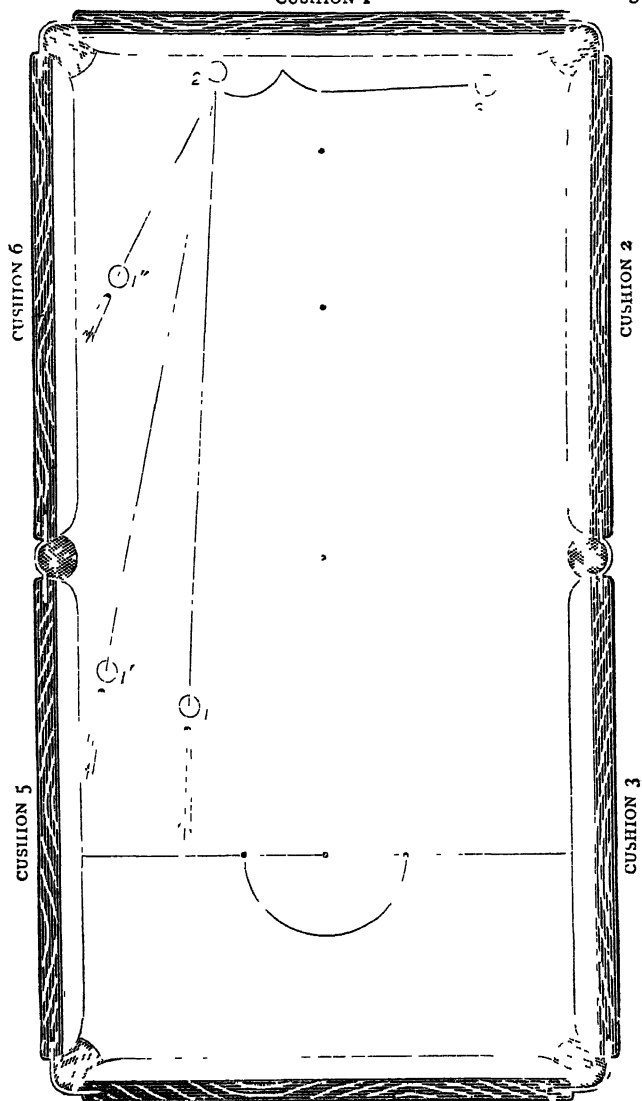
Diagram II

centre or above, it will follow too soon and again collide with ball 2, the result in both cases being failure.

Diagram III.—Measurements are not required, as the balls can be placed from the diagram with sufficient accuracy. From position 1'' the stroke can be made by a well-executed screw either direct or off the top cushion, but it is easier and more certain if played as a following stroke, but from positions 1 and 1' the screw is all but impossible, whereas the high follow offers a reasonable prospect of scoring. Let the cue be well aligned and let the player stand carefully, so as to ensure free delivery. Get well down to the stroke, play ball 1 a free No 2 strength, three-quarters high, nearly full on ball 2; after impact ball 1 will follow a path somewhat as indicated, the curve being usually very pronounced. The first and sharper curve is apparently due to the rebound after impact modified by the strong follow, whilst the second and more gentle curve is the result of impact with the cushion. The tendency of the latter is, of course, to reverse the follow and send the ball down the table; but the strong follow appears to fight with this, and to prevail so far as to maintain its bias for the cushion and its disposition to return towards it. Ball 1 may almost be placed anywhere towards the left side of the table, and the stroke remains much the same. As the distance between balls 1 and 2 increases, follow becomes less necessary, its place being supplied by naturally developed rotation.

The variety of strokes which may be played on this principle is very great. Too much force should not be employed, or that will in the final conflict defeat the follow, of which it is ordinarily impossible to give too much.

Fine strokes should rarely be attempted unless ball 1 is near ball 2; they are, then, however, often of great value, because, being played gently, the positions of the balls after the stroke can be foreseen with tolerable accuracy. The great secret of success is to stand properly, so that the edge of ball 2 may be clearly seen. A few examples are shown on Diagram IV. They can be set up without measurement.



CUSHION 4

Diagram III

Example A —A fine stroke on ball 2 will make the losing hazard and leave that ball about 2'

Example B —Ball 1 played fine on ball 2 will make the losing hazard and leave an opening from baulk

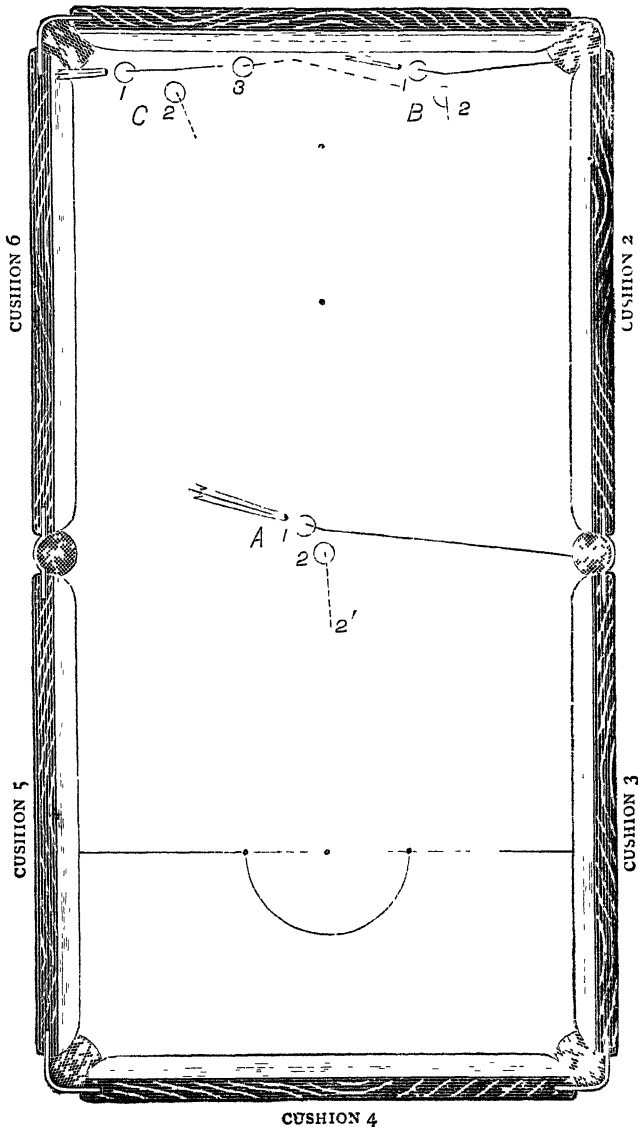
Example C —A very useful stroke. Ball 1 played fine on ball 2 will cannon rather full on ball 3, which it will dive as shown by the dot-and-dash line, ball 1 will stop between the other two, and a winning or losing hazard will almost certainly be left in either top pocket

In playing nursery cannons fine strokes are often useful; indeed, a player who possesses great delicacy of touch may make a series of strokes yet scarcely move balls 2 or 3. These cannons will be considered hereafter, and, therefore, are not at present further noticed

Fine strokes have the following drawbacks. they must usually be played so softly that the least obstacle or untruthfulness of ball will cause deflection from the proper path; the target presented by ball 2 is small, sometimes merely an edge, and an error so slight as to be imperceptible in the division of ball 2 may result in leaving the balls safe

In substitution for the push-stroke, close follow strokes and close screws (mentioned at p 252) are useful, but they require execution, which can only be acquired by practice before an expert, and are not infrequently challenged as foul even when correctly made. Consequently it is necessary to avoid positions which were desirable before pushing was abandoned. This can be done with considerable success, as all must concede who have watched the best players making a series of close cannons; but it is far from easy, and the games of many fine players have suffered for want of the push-stroke.

Kiss Strokes.—In the English game the term kiss is used rather vaguely, so that precise definition is difficult if not impossible. It includes the strokes which the French call *coups durs*, in which ball 2 is touching a cushion and cannot give way



CUSHION 4

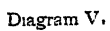
Diagram IV.

as usual, but throws off ball 1 with the recoil of balls and cushion combined, as well as those termed *rencontres*, or the meeting of balls 1 and 3, the former having been put in motion by the cue and the latter by collision with ball 2

Of the former kind examples are shown in Diagrams V and VI. In playing these strokes recollect that screw or retrograde rotation augments the velocity of ball 1 after impact, whereas follow has the opposite effect

Example A, Diagram V, is the simplest form of the stroke, the three balls being in one line—ball 2 against the cushion, and ball 1 between 2 and 3, a stroke full on ball 2 will result in a cannon. B is a modification, for ball 3 is out of the straight line, the cannon is made by a slight division of ball 2, say $\frac{1}{4}$ right, if ball 1 be played on that spot it will cannon on ball 3. The student can set up examples for himself, and by careful division of ball 2 make many cannons. The greater the distance ball 1 has to travel, the lower and harder must it be struck.

A very excellent practice to train the eye to the angles and the hand to control strength is afforded by Example C, which is otherwise not of much use in a game. Mark the positions of balls 1 and 2 slightly with pipe-clay, and try to make losing hazards into every pocket on the table. After each stroke the balls are replaced, and the number of strokes taken to make the six losing hazards is the measure of accuracy in play. The first stroke into the right bottom pocket is easy, it will soon be made in one trial, for it is almost a plain half-ball stroke. The second into the left bottom pocket is perhaps the most difficult of all, for not merely has ball 2 to be correctly divided but strong left side is used, the left middle and top pockets are made direct, accuracy depending solely on the correct division of ball 2, finer for the former, fuller for the latter pocket. The right top and right side pockets are made off the cushion, and in the last-named side is used. This hazard may be made without a kiss, ball 1, played a free No. 1 strength half-ball on ball 2, will touch



bottom and side cushions and travel towards right middle pocket. It is needless to enter into further detail for the advantage of the stroke is to accustom the eye to the angles at which ball 1 comes off the various divisions of ball 2, and that is learnt solely by practice. To try for the pockets merely gives an object of interest to the stroke, and, if further incentive be required, back yourself to complete the hazards in fewer strokes than another person may require. The practical application of the knowledge thus obtained is that, should ball 3 happen to be on the lines $2P$, $2P'$, $2P''$, or $2P'''$, the cannon may be played with some confidence, and if it be anywhere else on the table, a reasonable attempt to score may, if needful, be made, and a game *in extremis* may thus be saved.

Diagram VI — Example A is an easy and useful stroke. Ball 1 is 30 in. from cushion 3, 15 in. from bottom cushion, ball 2 on the baulk-line touching cushion 3, ball 3 is as shown in the neighbourhood, say 18 in. from the right top pocket and within 2 in. of cushion 2. Play ball 1 with high right side half-ball or slightly fuller on ball 2, free No. 1 strength.

Example B is, in its way, a curiosity, but the stroke is by no means devoid of use. First, suppose ball 2 on the baulk-line touching the cushion at its left extremity. Place ball 1 for a half-ball kiss hazard into the right top pocket. This is squarer than an ordinary half-ball angle, because ball 2, being against the cushion, cannot give way, but the difference is not as great as might be imagined, and the stroke is not very difficult. What is curious, however, is that, if ball 2 be moved a certain distance up the cushion to positions $2'$, $2''$, &c., a half-ball cannon will be made on balls placed $3'$, $3''$, &c., at exactly the same distance along the top cushion. That is, if ball 3 be placed at the centre of the fall of the pocket, the distances between 3 and $3'$, and $3'$ and $3''$, shall exactly equal those between 2 and $2'$, and $2'$ and $2''$.

The other class of kiss strokes is illustrated in Dia-

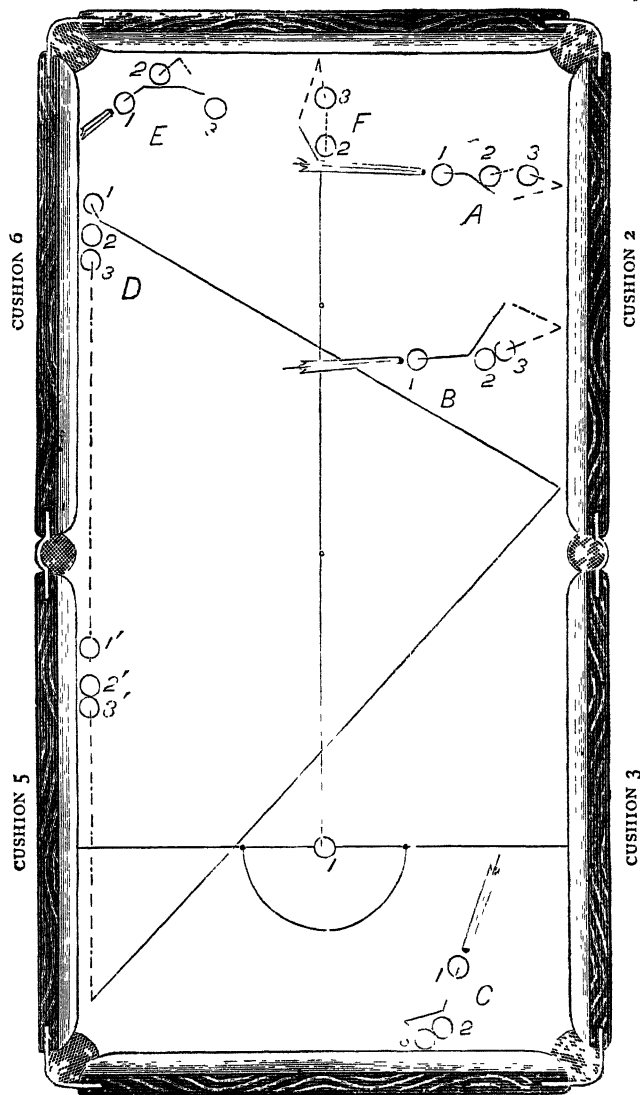
gram VII, from which it is seen that ball 2 is in no case touching the cushion, but that (except in case E) it is used to kiss or plant ball 3 in such a direction that it advances to meet ball 1, and the cannon is thus effected. In case E the course of ball 1 is modified by a second impact with ball 2.

Example A. The three balls are in a straight line perpendicular to the cushion. If ball 1 be played absolutely full on 2, that ball will strike 3 full also, and no score will be made, but if ball 2 be struck slightly out of the centre—that is, between centre and $\frac{3}{4}$ —a cannon will result. Play ball 1 a soft No. 1 strength slightly to the right of the centre of ball 2, which will travel proportionately to the left and strike ball 3 to the left of its centre. Ball 3 will strike the cushion slightly to the right of the perpendicular line, and, returning therefrom, will meet ball 1 when the cannon is complete. Ball 2 may be struck similarly on the left of its centre, and the stroke be made on the same principle as before.

Example B. Balls 2 and 3 touch, and the line through their centres is slightly inclined to the cushion. Ball 1 is so placed that the fine cannon is either impossible or dangerous. Play a gentle No. 1 centre stroke on ball 2 about three-quarters left; ball 3 will be planted on to the cushion, and, returning, will meet ball 1. The general fault is to play too fine on ball 2, but the stroke is easy.

Example C. Place the balls as shown; do not attempt the fine stroke, but play half-ball on ball 2, the cannon is inevitable.

Example D partakes more of the nature of a fancy stroke than of one useful in games, nevertheless, it illustrates in a striking way what may be done by means of the kiss or plant. Set up the balls as shown in a straight line. Balls 2 and 3 should touch, and ball 1 should be a little apart, to permit of a stroke on ball 2. The balls should touch or be very near the side cushion. Play ball 1 one-quarter right, No. 2 strength on ball 2, so as to impinge on the side cushion above the right middle pocket. Ball 2, being thus struck rather fine, causes ball 3



CUSHION 4

Diagram \ II

to travel at a moderate pace down the table towards baulk, whilst ball 1, travelling faster, comes off cushion 2 and meets or catches ball 3 generally in baulk. A similar and easier stroke may be from positions 1', 2', 3', near cushion 5, ball 1 being played on ball 2 to strike cushion 3.

Example E is a very pretty little stroke, which may be thus placed

Ball 1 . $6\frac{1}{2}$ in from cushion 6, 7 in. from top cushion.

Ball 2 . $11\frac{1}{2}$ in ,, 6, $2\frac{1}{2}$ in. ,,

Ball 3 $19\frac{1}{2}$ in. ,, 6, $7\frac{1}{2}$ in. ,,

It will be observed that there is no direct stroke whereby ball 2 may be kept at the top of the table, nor is the fine side stroke (ball 1 with strong right side played fine on the left of ball 2) possible, in fact, the position seems far from being desirable. Yet, if the directions for playing this stroke be followed, the cannon will be found almost a certainty, and the balls will generally be well left for further play. The stroke is made thus: play ball 1 centre, a soft No 1 on ball 2, three-quarters right, which will return from the cushion, kiss ball 1 on to ball 3, and often remain between ball 1 and the pocket. Hence, if ball 2 be the red, a better opening for a break could scarcely be desired. The stroke should first be practised from the positions indicated until fair certainty is acquired, then the positions may be slightly varied, and it may with advantage be set up without measurement, so that the eye may become trained and able to recognise the situation should it occur in a game.

Example F happens occasionally, and, therefore, it is well to be prepared. The three balls are in one straight line, and the situation generally comes about thus: the red ball being on the spot, the adversary's ball happens to stop directly above it, between the red and the top cushion, ball 1 being in hand. The easiest way to score is to place ball 1 in line with balls 2 and 3, in this case on the centre spot of the D, and play full on ball 2. Personal inaccuracy will in this case insure the score,

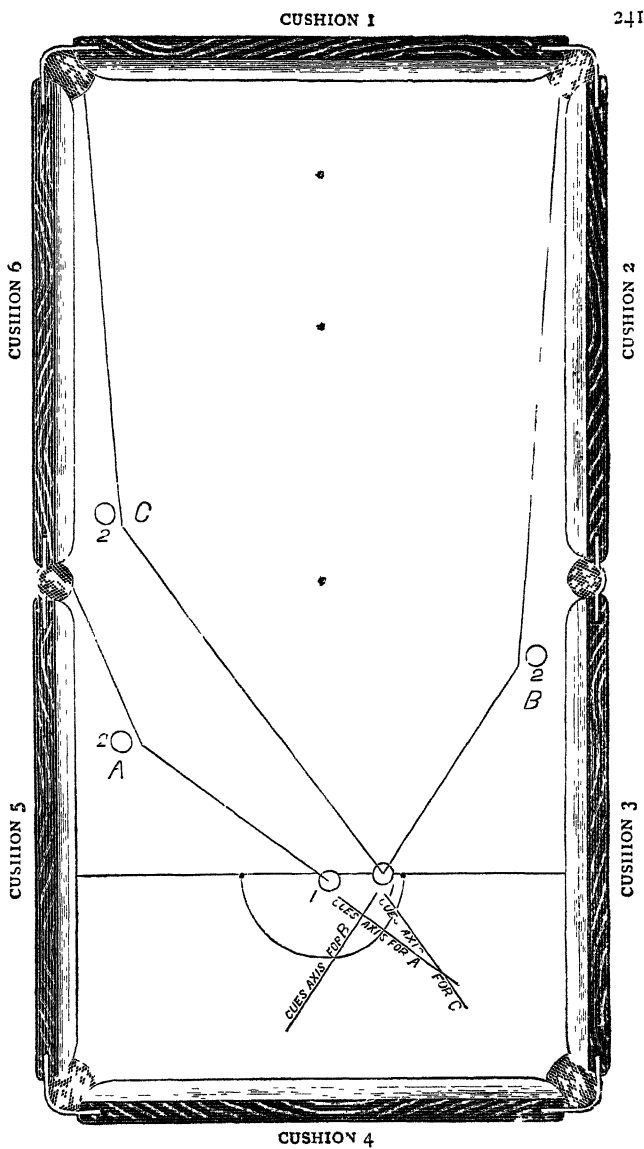


Diagram VIII

for ball 2 will rarely be struck so full as to impinge on the centre of ball 3, it will strike it on one side or the other, and a cannon will result on the same principle as that explained under Example A.

The general warning as to kiss strokes should be remembered. Avoid attempting doubtful strokes, specially when the balls are not close together.

Jennies — In Chapter V. p. 168, an example of the plain half-ball stroke was described, and whenever the pocket is fairly open these strokes can be best made without side; but when the pocket is very blind, the losing hazard cannot be thus made, and side, which takes ball 1 into the pocket after touching the farther shoulder, must be employed. The nearer ball 2 is to the side cushion the more difficult is the stroke and the more side is required. The general fault in playing these strokes is that ball 2 is struck too full, a natural result of the use of reverse side, of which it is impossible to put on too much, specially for long jennies.

Diagram VIII — Example A

Ball 1 : about 1 in. behind and right of the centre spot of the D.

Ball 2 : $22\frac{1}{4}$ in. below the left middle pocket, $6\frac{1}{4}$ in. from the side cushion.

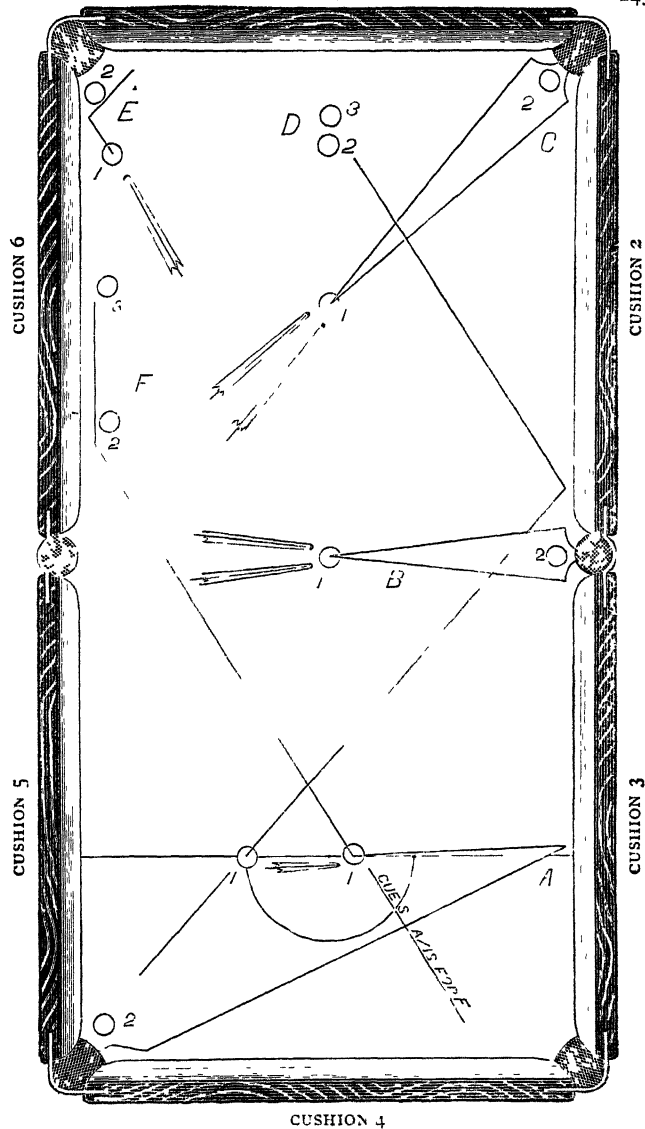
Play ball 1 one-quarter left medium No. 1 strength on ball 2, half-ball or rather finer; the hazard will be made off the far shoulder of the pocket, and ball 2 will rebound nearly perpendicular to the side cushion towards the centre of the table.

Example B.

Ball 1 : on baulk-line, 8 in. to the right of centre.

Ball 2 : $10\frac{1}{2}$ in. below the right middle pocket, 4 in. from cushion 3.

Play ball 1 one-quarter right free No. 1 on ball 2 half-ball or finer. The more side the stroke is played with the better, it will often compensate for inaccuracy of aim.



CUSHION 4

Diagram IX

Example C

Ball 1 : as in last example.

Ball 2 : 9 in. above the left middle pocket, 4 in. from cushion 6.

Play ball 1 one-quarter left No 1 strength on ball 2 from half-ball to quarter-ball.

Jennies are not nearly so difficult as they seem at first sight. The general rules for playing them are, for middle pockets, plain wherever possible, ball 1 being struck rather below than above the centre. But when ball 2 is so near the side cushion that the hazard cannot be made by a plain stroke, and for long jennies, use as much side as possible and endeavour to aim on ball 2 finer than half-ball.

In Diagram IX. a few examples will be found of *bricole* strokes, or those in which ball 1 strikes a cushion before impact with ball 2, side being used. Plain strokes of the sort have been mentioned in Chapter VI.

Example A.

Ball 1 . on baulk-line a little to the right of centre.

Ball 2 over the left bottom pocket as shown.

Play ball 1 one-quarter right, aiming just out of baulk, No. 1 strength, the side, if correctly judged, will bring the ball back as indicated, and the losing hazard may be made.

Example B.

Ball 1 : on the centre spot.

Ball 2 : on the centre transverse line of the table overhanging the pocket, with just room on either side for ball 1 to pass without touching it.

The losing hazard may be easily made as shown from either side of ball 2. Take first that from the left side. Play ball 1 one-quarter right, medium No. 1 strength, so as just to pass ball 2 to the left without touching ; ball 1 will return from within the shoulder, strike ball 2, and fall into the pocket. For the hazard from the right of ball 2, ball 1 is played one-quarter left, to pass the right of ball 2.

Example C is precisely the same stroke into a corner pocket.

Example D may occasionally be of use, though generally a miss would be the proper game under the circumstances. Ball 1 is supposed to be in hand, ball 3 having stopped near ball 2 on the spot, but not sufficiently straight above it to warrant playing for the kiss cannon. In this case the knowledge acquired by playing an old fancy stroke—to make the losing hazard off ball 2 from baulk by playing *bricole*—is utilised. In that stroke an approximate guide as to the point of aim on the side cushion was obtained by aligning the cue so as to pass over the left bottom pocket, and the left corner of the D: the prolongation of that line indicated the point. Hence, by aiming a little above the point thus found, ball 2 is struck on the right side, and the cannon is possible. Place ball 1 on the left corner of the D, play a free No. 1 strength at the side cushion, aiming as directed. One or two trials will determine the correct point of aim with a given strength, if the strength is altered, the angle of reflexion will also alter.

Example E, on the other hand, is perfectly simple and most useful. Measurements are unnecessary. Play ball 1 to the cushion with slight right side, ball 2 will be pocketed, and ball 1 will rest in a good position for a losing hazard from spot into the right top pocket.

Example F—Ball 1 in hand, balls 2 and 3 as shown about the diameter of a ball or a little more from the side cushion, so placed that the fine cannon from 2 to 3 would be very difficult. By placing ball 1 on the baulk line as shown, and by playing with a little right side behind ball 2, ball 1 will, after impact, run down the cushion and make the cannon. When the eye is trained, ball 2 may be a considerable distance—say six or eight inches—from the cushion, and the stroke may be made with a reasonable chance of success, whereas played in any other way the result would almost certainly be failure.

Plants (see definition in Chapter III) are perhaps more

connected with pyramids and pool than with billiards, nevertheless, they may be occasionally used, and, therefore, must be briefly considered. The simplest form is when the centres of balls 2 and 3 are on a straight line which leads to the centre of a pocket. (See Diagram X)

Example A —Balls 2 and 3 are on the line P Q and touch each other. Ball 1 may be on any part of the table from which ball 2 may be struck save the small corner cut off by the line R S perpendicular to Q P, and if played on ball 2 with sufficient strength ball 3 will run into the left bottom pocket. It is hardly possible to miss the winning hazard, and hence, whenever two balls touch and are so aligned, a very easy stroke is presented if ball 1 be suitably placed; for, no matter how badly it may be played on ball 2, ball 3 must of necessity travel to the pocket.

So far the matter is simple enough; but the next example, B, at once introduces difficulties which it is proposed to observe and notice rather than attempt to explain. A glance at the diagram will show that in this case G H, the alignment through the centres of balls 2 and 3, does not terminate in the pocket, but falls slightly without, hence, if the ball were played in the ordinary way, ball 3 would impinge near the shoulder at H. In the first place, let ball 1 be removed from the table, and let the problem be to play ball 2 with the cue so as to put ball 3 into the pocket. If this stroke be presented without explanation, nine men out of ten or more will attack ball 2 from the baulk side, playing towards the top of the table. The more they do this the further up the table will ball 3 strike the cushion, but let the player go round and place his cue on the alignment shown so as to strike ball 2 on its side towards the top of the table—that is with right side—a medium No. 1 stroke, when, wonderful to relate, ball 3 will travel to the pocket in the most docile manner. That having been established to the satisfaction of the player, let him replace ball 1 on the table anywhere as shown—that is, in any of the positions marked 1

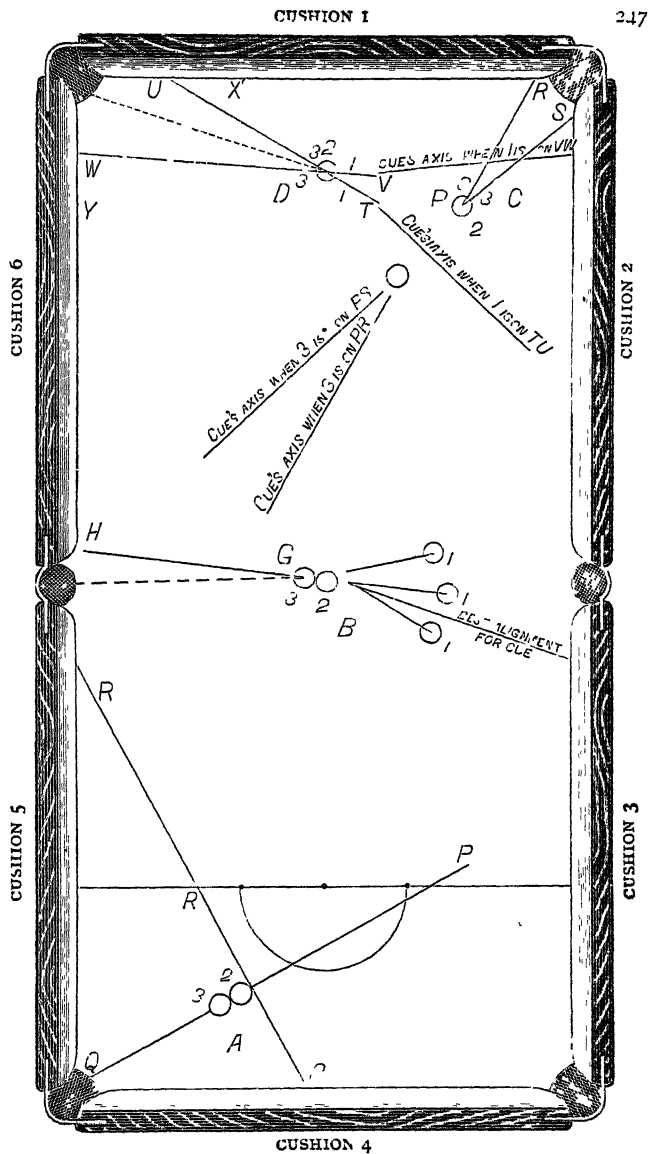


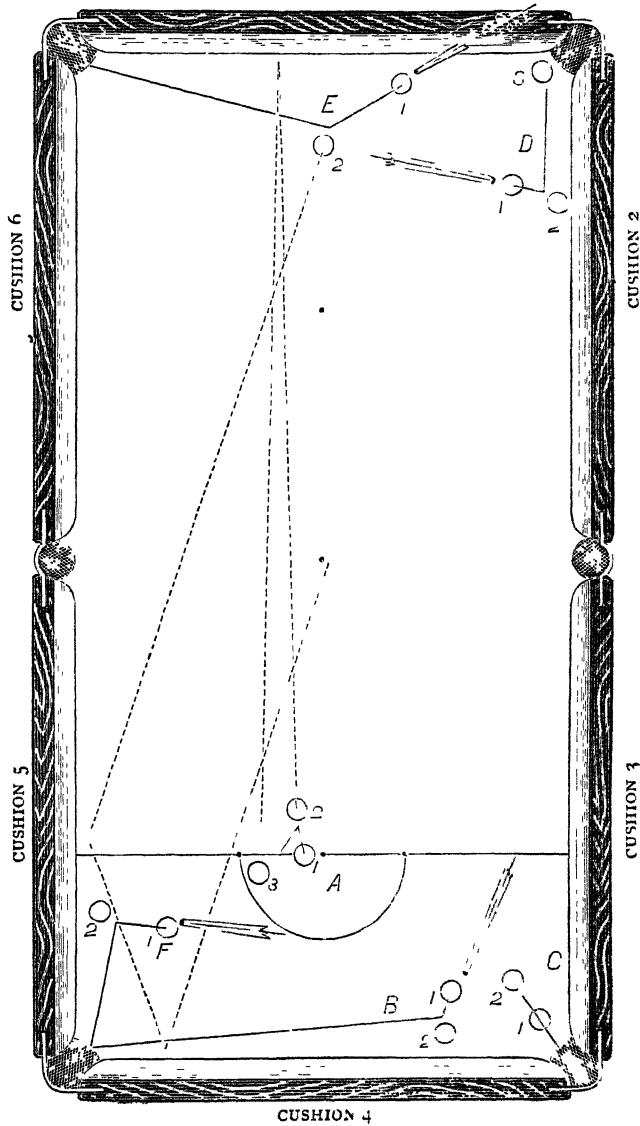
Diagram X.

or in any intermediate position. For the stroke as now set up, play ball 1 one-half left, No 1 strength, on ball 2 half-ball or fuller to the right, again ball 3 will roll obediently to the pocket. If by an error of judgment ball 2 be played on to the left, ball 3 will strike the cushion above the point H.

Example C is merely an amplification of the same stroke. Ball 2 is conveniently placed in front of the pocket, and ball 3 is placed touching it first on the line P R, when the straight plant is to the left of the pocket, and next on the line P S, when it is to the right; ball 1 being somewhere as shown, an exact position for it being of no consequence. Now, when ball 3 is on the line P R, to the left of the pocket, play ball 1 on the left side of ball 2; when it is on the line P S, to the right of the pocket, play to the right of ball 2; in both cases the winning hazard will be triumphantly made.

These strokes are capable of ready demonstration on a table, but the laws which govern them are not certainly known. The results seem to point partly to transmitted side, but that is scarcely sufficient to account for so considerable a deviation from the straight plant, specially if it be considered that such side can hardly be detected by the unassisted human eye. Very likely, when once it is understood, the explanation will seem simple enough; at present, so far as is known, the result has not been accounted for in a satisfactory manner.

Example D is worth mentioning and worthy of practice; like most other strokes, it can be far more satisfactorily explained on the table by a man who can play it than by the most careful description on paper; yet, as in spot play and possibly in other circumstances it may be useful, an attempt to convey an idea of the stroke will be made. Ball 2 is on the spot; ball 1, too near it for any ordinary stroke with fair chance of success, but not necessarily touching, is first on the line T U, the straight plant being therefore on the point U. Now, if the cue be aligned as shown on the right side of ball 1, pointing towards x, and a medium No 1 strength be delivered, ball 2 will be



CUSHION 4

Diagram XI

deflected into the pocket. Conversely, when ball 1 is on the line *vw*, close to ball 2, the cue must be aligned on a point *v* below *w*, and a stroke on the left side of ball 1 will, as before, result in sending ball 2 to the pocket. The principle is apparently the same in all oblique plants, if those may be so called whose path is not the prolongation of the straight line through the centres of the two balls.

In Example C ball 3, and in Example D ball 1, are not drawn, in order to avoid complicating the diagram; their positions are indicated by the figures

The subject of screw strokes was fully considered in last chapter, and practice was recommended with the view of facilitating the acquirement of the stroke rather than of illustrating its application to the game; hence it is now appropriate to give some useful examples.

Diagram XI. Example A —Balls 1, 2, and 3 as shown. This stroke may be played in many ways, depending on where it is desired to leave the balls. If ball 2 is to be brought back, play ball 1 one-quarter low about No. 2 strength nearly full on ball 2, which will travel to and return from cushion 1; ball 1, having parted with its velocity, will return slowly to ball 3, and the three balls should be left together. It might be desirable to play the stroke in a totally different manner if, for example, 2 were the adversary's ball. In this case it would suffice to send ball 2 up the table towards spot, and cannon on ball 3 so as to leave a winning hazard in the left bottom pocket. To do this the strength communicated to ball 2 must be diminished, and this may be effected by playing finer on that ball and by using more screw in compensation.

Example B is a good practice stroke, and may be played harder or softer at will. It does not require to be laid down by measurement, and may be set up wherever convenient. Play ball 1 about one-half low and left, medium No. 1 strength on ball 2, about three-quarters right.

Example C, a screw-back losing hazard, is often useful,

ball 1 being between ball 2 and the pocket ; no instruction is required beyond that given in last chapter for playing the stroke. It may be varied by moving ball 2 round ball 1 as far as the cushions will permit , the stroke is always possible, and in trying to make it some practical lessons in the matter of compensation will be learnt.

Example D.—Place the balls as shown Play ball 1 three-quarters low on ball 2, half-ball or rather fuller, but avoid the kiss. Ball 1 will travel up cushion 2 and make the cannon or hazard, whilst ball 2 will escape towards the left middle pocket.

Example E is a screw off a fine ball, a stroke at which many amateurs fail chiefly because they do not stand properly for it—do not usually align their cue fine enough on ball 2. If played very slowly, very fine, and with the maximum of screw, the stroke is perhaps more certain of execution, but ball 2 will probably be left in baulk. To obviate this, play rather fuller, with less screw, and with more strength. The stroke is conveniently made from the spot, ball 1 being placed variously between the angle at which a losing hazard with side can be made and the vertical, or when the ball 1 is directly above the spot. The position shown in the diagram is a fair one, the stroke being not very difficult ; it becomes more so as ball 1 approaches the position above the spot. It may be thus played : Align the cue as shown for a fine stroke, play ball 1 one-half low No. 2 strength on ball 2, one-quarter right. It is difficult in a stroke of this nature to give precise instructions for making it, because it varies with every slight variation of the position of ball 1 and with the power of each player to communicate screw , hence it is advisable at first to get the assistance of a competent person, and then to practise before minor details are forgotten.

Example F is well worth mastering , it is easier the nearer ball 2 is to the pocket. Play ball 1 one-half low and right on ball 2 about three-quarters left a free No. 1 strength. Ball 2 may thus be brought out of baulk, whilst the reverse side carries ball 1 into the pocket. In strokes of this kind care should be taken to avoid the kiss.

Close screws, when ball 1 is so near ball 2 that the stroke cannot be made in the ordinary way, are worth mastering, but as some execution is required, they should at first be played under professional supervision. The chief point about them is to convey to ball 1 a maximum or nearly so of screw and side, the cue has to be delivered with great freedom, and ball 1 passes well beyond the position occupied by ball 2, then the forward force (translation) having been chiefly transferred to ball 2, the screw and side conquer the small balance left and ball 1 returns more or less towards the player. A rather neat example of a close screw is shown on Diagram XII, and may be set up on the table without measurements. Play ball 1 one-half low and one-half right, a free No. 2 strength on ball 2 between three-quarters left and centre, so as to cause its return after impact with cushion 1, ball 1 should make the cannon off cushion 4 and perhaps cushion 5 as well, and the three balls should be gathered at the left bottom pocket. This kind of stroke is useful for losing hazards also, but should not be practised until the player has acquired much confidence in the delivery of his cue, lest accidents should happen.

Another stroke which must be noticed, though it should be rarely employed, is that known as the *leap* or *jump*, whereby ball 1 leaves the bed of the table during part of its course. It is made in two ways—either by laying the cue on the table, aligning it as usual in the direction desired for ball 1, and striking that ball so low that the tip touches the cloth before it reaches the ball. This is practically equivalent to putting the cue under the ball and throwing the latter upwards, but there being at the same time a forward motion, the result is a leap higher and longer in proportion to the strength of stroke. Played in this way there is no danger of cutting a sound cloth, and the ball may be made to jump higher with less strength, and to be better under control than when the leap is otherwise effected.

Ball 1 may also be made to leap by striking it down towards the bed, the cue being oblique, its butt elevated—in fact, by an

CUSHION 6

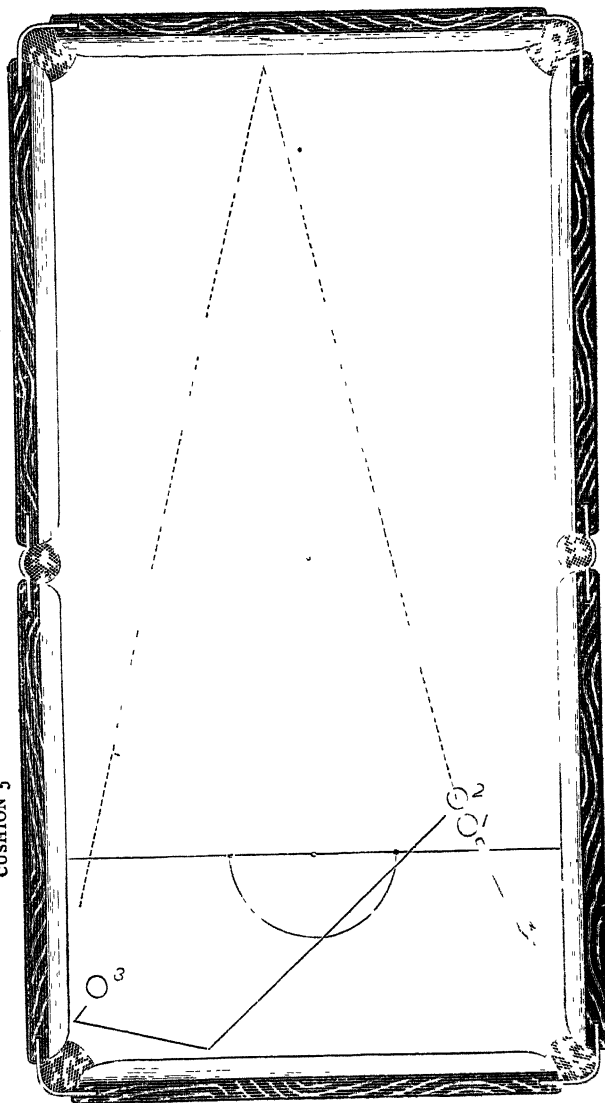
CUSHION 2

CUSHION 5

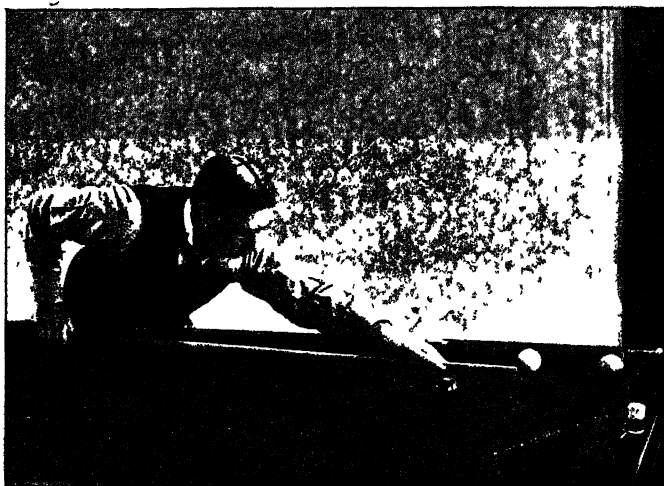
CUSHION 3

CUSHION 4

Diagram XII



exaggerated stab. The ball is thus momentarily squeezed between cue-tip and bed, and leaps as it escapes from the pressure. This stroke should be practised with the greatest moderation; indeed, not at all until the player is well experienced and confident in handling the cue, for it commonly results in knocking the balls off the table and damaging them, and may further cut the cloth. The stroke is sometimes of use, and, therefore, must not be ignored, but it is safe to say that no one

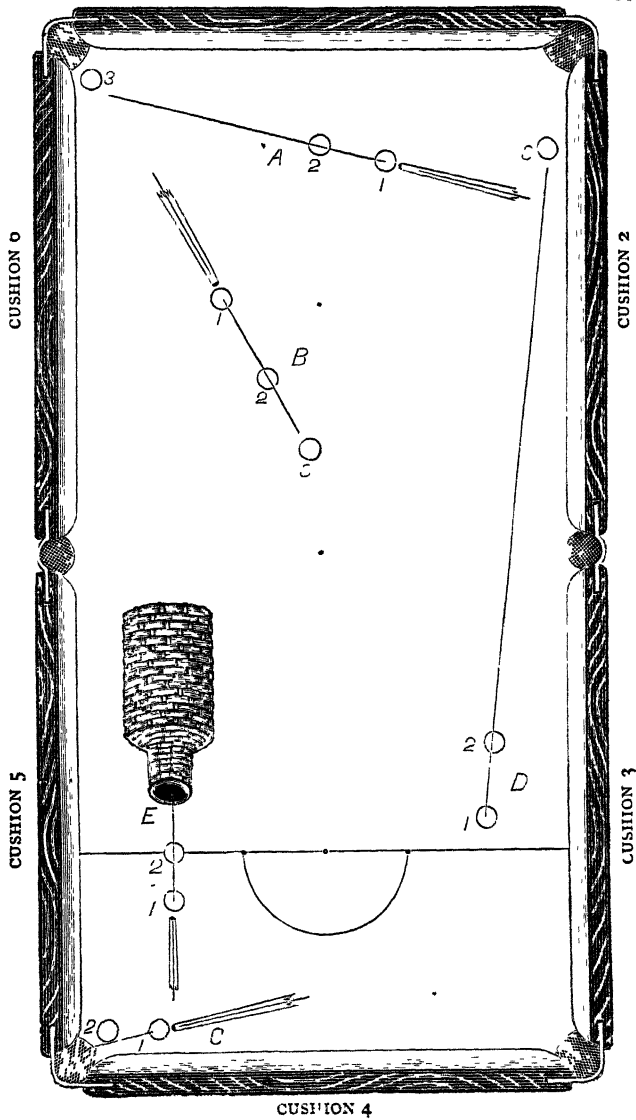


The leap or jump stroke

who valued his table or a good set of balls would willingly see them used for this class of practice.

Diagram XIII shows a few instances in which the leap stroke is legitimate, and as safe for the balls and table as is possible under the circumstances.

Example A.—It is desired to play the winning hazard on ball 3 without disturbing ball 2. Align the cue on the table in the direction required for the hazard, see that the tip is on the cloth and kept there, and play a medium No. 1 strength. Ball 1 will leap over ball 2 and make the winning-hazard.



CUSHION 4
Diagram XIII

Example B.—The three balls as shown are in a straight line with no reasonable chance of a score. The situation happened at a critical moment in a match which the writer played many years ago, and a successful leap cannon enabled him to win. Place the cue in alignment with the three balls, and play the stroke as directed for the previous example, ball 1 should jump on ball 2 and roll off to ball 3. The difficulty, of course, is to control the strength used; the top of ball 2 must be cleared, and yet the ball must not be wholly missed. It is a question of nerve and judgment tempered very considerably with good luck. There is little or no danger to cloth or balls in practising this stroke.

Example C is one which is not infrequently played in exhibition games. Ball 2 is so placed that it cannot be got rid of by means of the shoulders of the pocket, and there is not sufficient room for a cushion or *bricole* hazard. A delicate leap stroke played between ball and cushion will make the losing hazard. It is not a desirable stroke for a beginner to practise, for he will inevitably cause ball 1 to jump beyond the pocket and roll away till brought up by some obstacle more or less destructive.

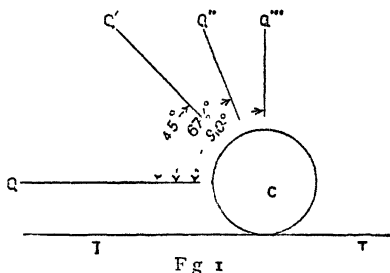
Example D is of a class which occurs occasionally in actual play. Balls 1, 2, 3 are nearly in a straight line, ball 3 being about 2 in from the side cushion, so that a ball cannot pass between. An ordinary following stroke is difficult and uncertain, so usually the best play would be to give a miss; but the state of the game may render that impossible or undesirable, in which case the best chance of scoring is to strike down on ball 1, causing it to leap on to ball 2, which in turn bounds away, leaving the course clear for ball 1 to reach ball 3 and make the cannon either direct, off the side cushion, or even possibly from the top cushion.

The effect of ball 1, so struck, causing ball 2 in turn to leap, is prettily shown by placing the pool basket and balls as drawn in Example E. A smart stroke down on ball 1 will cause ball 2 to jump into the basket.

Many examples of fancy strokes made by means of the leap

could be given, but they are purposely withheld, as there is no wish to encourage experiment as useless to the game as it is detrimental to the implements

Piqué and *massé* are not often used in English billiards ; the latter, indeed, seldom or never, whilst the former, when used, is miscalled *massé*. They form in reality a continuation of the series of strokes which, departing from the normal or horizontal, culminate in one delivered vertically on the top of the ball. Thus, in fig 1, Q, Q', &c., represent the axes of a cue presented at various angles to the ball whose centre is c on the table TT. It has already been explained, but may without harm be repeated, that, the strength of stroke being equal, the maximum forward motion to the ball, or translation, is

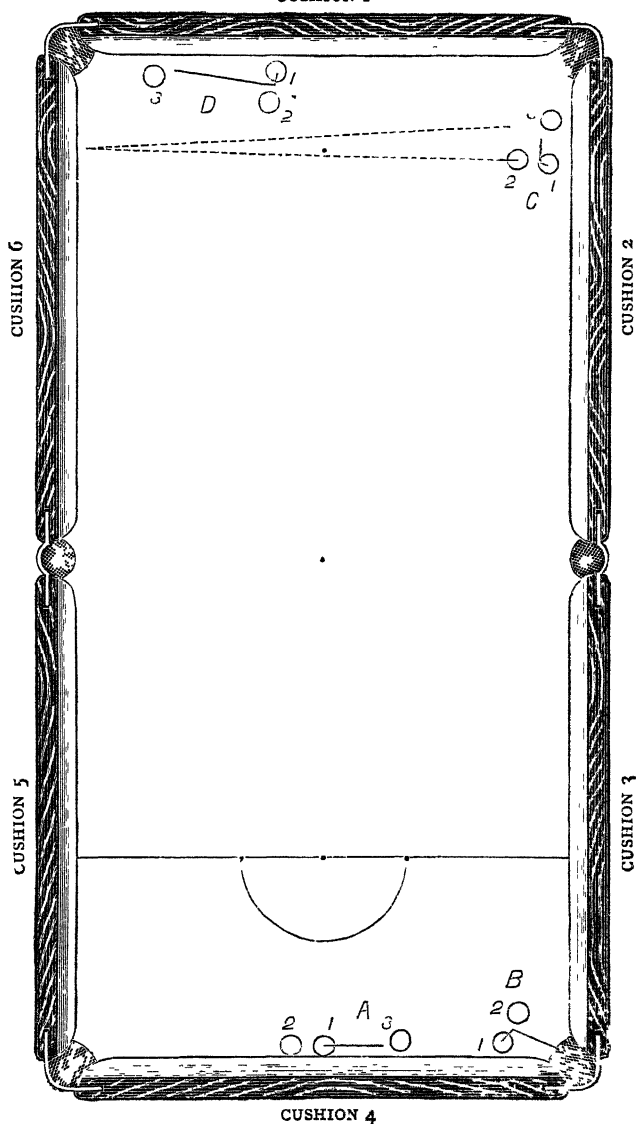


given by the horizontal delivery of the cue on the line Q c. As the angle of delivery increases, so does the forward impulse decrease until the limit 90° , or a vertical stroke, is reached, when there is manifestly no forward motion communicated to the ball, the entire force of the stroke being counteracted by the rigidity of the table. Now, without any attempt at fine distinction or any claim to precise accuracy, it may, in a rough way, be said that plain strokes are delivered on the axis Q c, that stabs lie between that and Q' c, which is at an angle of 45° with Q c, or half way to the vertical ; that *piqué* commences at Q' c and ends at Q'' c, beyond which the strokes are termed *massé*. This is not exactly correct, for there may be a *massé* with less inclination than Q'' c, the real distinction between *piqué* and *massé* being that in the former the cue's axis is directed to the centre of the ball, and therefore the effect is to drive it straight with reverse or retrograde rotation, in the latter, the cue's axis is not

directed through the centre, but on one side or other of it, with the consequence that the path of the ball is no longer a straight but a curved line. This is the case to such an extent that the rotation round an oblique axis will often conquer the small measure of translation or displacement conveyed by the stroke and produce some beautiful curves.

Now, so long as the push stroke was allowed, *massé* was seldom attempted, it is difficult of execution at any time and in any position, impossible on a large English table save when the balls are near a cushion. It further has the great disadvantage, when played hard, of causing a dent or pit in the cloth sufficient to deflect or arrest a very slow ball, and therefore soon spoils a cloth near the cushions on the very part most used for nursery cannons. It is also doubtful whether with the most skilful manipulation effect can be got with small balls and fine-pointed cues at all equal to that which is obtained in the French game. Hence for many reasons we are indisposed to recommend the study and practice of this undoubtedly beautiful stroke.

Quite otherwise, however, with *piqué*, which may often be used with advantage in the English game and without harm to the table. The stroke is indispensable when ball 1 is so near ball 2 that the screw-back cannot be made in the ordinary way, or when the cushion prevents the application of the cue to the proper part of the ball. In Diagram XIV. a few examples are shown. A learner should get some person who can make them—and they are all very simple—to play the strokes before him once or twice, when he will observe that no great strength is required: the weight of the cue let drop on the right part of ball 1 will almost do what is needed, and by restraint of force the danger of cutting the cloth is greatly reduced. More harm is done by hitting the ball hard vertically, for then the cloth is damaged in the same way, though not so badly as when a careless or thoughtless person in spotting the red ball, finding that it has a tendency to move on the spot, hammers it down with force, thus in a very short time forming a cup



CUSHION 4

Diagram XIV.

sufficient to ruin all delicate play from the spot, and with a hard stroke very likely to cause the red ball to fly off the table. The practice is most reprehensible, and persons doing it should invariably be remonstrated with, for they are ruining the table for more intelligent players

Example A. Balls as shown. Play ball 1 a gentle *piqué*, the cue at an angle of about 60° , inside, *i.e.* to the left of the centre of ball 2, ball 1 will return and cannon on ball 3, ball 2 will be left in the neighbourhood of the left bottom pocket. If it be desired to move ball 2 very slightly, the stroke may be played *massé*, the cue being nearly vertical, and ball 1 struck slightly to the right of the centre, nearer ball 3 than the centre. This mode of play gives greater rotation but less forward motion to ball 1

Example B. Balls as shown. Play ball 1 *piqué*, cue from 50° to 60° according to the distance it is desired to make ball 2 travel; aim at ball 2 about three-quarters right, a clean gentle stroke, say equal to a medium No. 1. Ball 1 will make the losing hazard.

Example C. Balls as shown. Play ball 1 *piqué* 45° to 50° nearly full on ball 2, which will cross the table and return or remain near the spot as may be desired. The strength employed should be almost entirely communicated to ball 2, whilst the rotation will make the cannon. If ball 2 be the red, it may be as well to bring the balls together for the next stroke, if it should be the adversary's ball, it would be better play to leave it near the spot and pocket the red next stroke

Example D. Balls as shown. Ball 1 is too near the top cushion for a screw in the ordinary way, whilst ball 3 is so placed that a ball cannot pass between it and the cushion. Play ball 1 *piqué* 55° to 65° , so as to bring it well on the right or cushion side of ball 3, which is by its situation what is termed in billiard language greatly enlarged. A few remarks respecting this term will be found a little further on.

Respecting *massé* proper, it is not proposed to write in detail. Those who desire more information are referred to 'Le Bullard,'

by M. Vignaux,¹ from which excellent work, though on the French game, much may be learnt by players of the English game. Two of his remarks may be quoted :—‘No stroke is more difficult. Good players hesitate to attempt it, for the slightest inadvertence causes failure. The fault of amateurs is always to play too hard, a stroke which requires the greatest delicacy and the lightest possible touch.’

This chapter may be suitably closed with a few remarks on what are called precautions and compensations. In certain situations we have already frequently remarked that a pocket was blind—that is, was more or less narrowed by one of its shoulders, and as a precaution, if a hazard is desired the player has been warned to avoid the dangerous shoulder. Sometimes it is sufficient to play inside the other shoulder, at other times, when the pocket is more blind or less open, reverse side has to be added in the case of losing hazards to induce the ball to enter the pocket after contact with the far shoulder. The side so used is said to enlarge the pocket, and the expression is appropriate, for if the ball struck the part of the shoulder which is exposed and had no side it would simply rebound and remain on the table; the side overcomes this tendency and the hazard is made. Again, in case of cannons, a cushion or two cushions, if judiciously made use of, similarly enlarge the size of a ball. When ball 3 is near an angle of the table so placed that another ball cannot pass between it and either cushion, a very large target is presented, and there is room for much inaccuracy without imperilling success. The thoughtful player will avail himself of this when it is of paramount importance to make the stroke, as, for example, when it is the game stroke, and so aim as to have the widest margin for error on either side. This is an instance in which there are many chances whereby a cannon may be made direct or off either cushion, so that ball 3 has for practical purposes a size equal to three or four balls.

¹ Delarue, Paris.

Similarly, when a ball is within a diameter of a cushion, it may be enlarged by judicious precaution.

Thus, in fig. 2, C C is the cushion, 1, 2, 3 are the balls.

If it were the last stroke of the game, and therefore the cannon were of chief importance, the stroke should be played to make ball 1 after impact with ball 2 travel towards a point P between ball 3 and the cushion, and not direct on that ball. If ball 1 should strike the cushion anywhere

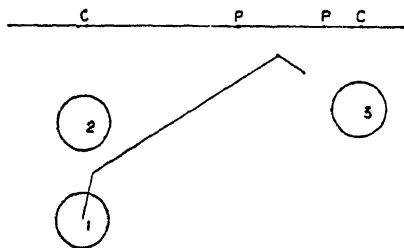


Fig 2

from P' to a point opposite the centre of ball 3, the cannon is certain, hence, aiming at P, a convenient spot between P' and ball 3, a margin for error is left on either side.

The subject of compensation is very interesting, and its proper use is one of the refinements of play. Certain elementary forms will be described, but the application of the principle to the execution of strokes must be left to the intelligence of the player, and this may with safety and a clear conscience be done, for the less ambitious and clever player will not concern himself with the question.

Perhaps the simplest form with which ordinary amateurs are familiar is that whereby the angle between the paths of ball 1 before and after impact with ball 2 is diminished or enlarged by side which compensates for strength. Thus, taking plain losing hazards of the simplest type (Diagram IV. p. 165), side may be substituted for strength, and the angle of deviation altered so that with the strength prescribed for the first hazard the second and even the third hazard may be made. Similarly, reverse side will compensate for fine striking; it will, in other words, decrease the angle of deviation.

These remarks of course apply equally to cannons, and

impact must be at R' , and, this being fuller than before, ball 2 will travel faster and ball 1 slower, if the strength of the two strokes is the same. But as ball 2 is struck fuller, less screw is required, and therefore ball 1 need not be hit so low. Here the additional fullness on ball 2 is compensated for by a diminution of screw, and the cannon is made, were the screw kept the same as that necessary when impact was at R , ball 1 would return to some such position as $1'$, and the cannon would be missed.

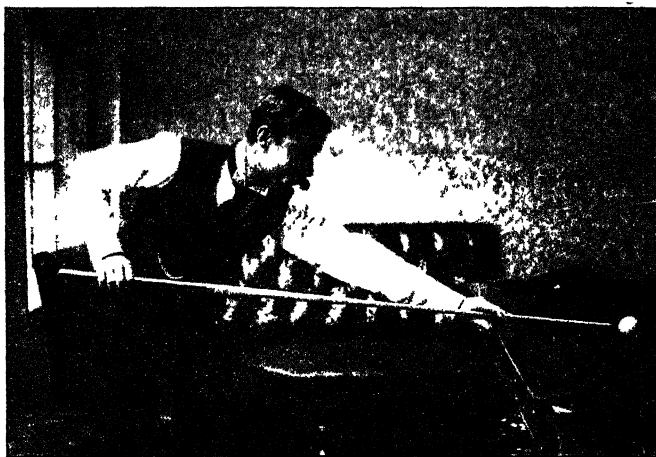
Again, suppose that it is wished to send ball 2 towards P'' ; R'' must be the point of impact, and that makes the stroke so fine that ball 2 will travel much more slowly, and ball 1 as much faster; hence, to get the cannon, ball 1 must be struck extremely low to compensate for the loss of recoil occasioned by taking ball 2 so fine. So, if it be desired to make ball 2 in this case travel as far as before, additional strength must be used to compensate for the fineness of the stroke. This example shows the principles involved, working them out and applying them correctly to particular strokes is a matter of practice and experience, without which theoretical knowledge is useless or nearly so for purposes of play.

Another common illustration of the principle of compensation is the drag stroke, which was explained at p. 205. As the ball is hit more and more below the centre according to the length of the path to be travelled, so must greater strength be used to compensate for the loss of naturally developed rotation, and, conversely, when that rotation is too powerful, or when there is special need for accuracy of path, or necessity for diminishing the travel after impact with ball 2, compensation is given in the form of retrograde rotation by striking ball 1 below the centre.

It is hardly necessary to give more examples, the great matter being to direct attention to the general principles which govern the conversion of strokes, and to make the player inquire why he attempts a stroke in a certain way. When he begins to do this and can solve such questions satisfactorily, the power will soon follow to realise at sight the compensations

which he must apply to each stroke as it occurs in order to continue a successful break , and then, as in other matters affecting us, the value of calm sound judgment becomes apparent

In almost every stroke in a break some compensation or other is used in order to control the paths of the balls. Strength is substituted for side or *vice versâ* , screw is increased or diminished according to the fineness or fulness of the stroke, which in turn involves variation in strength, and so on , substitution of one element of a stroke for another is constant, even though the player may scarcely appreciate the fact



When player's ball is near a cushion

CHAPTER VIII

THE SPOT STROKE

HITHERTO the theory of the game and the strokes recommended for practice have been such as are required in learning to play a sound and perhaps old-fashioned game, that of an amateur in distinction to that of a professional player. But in dealing with the spot stroke a wholly new field is entered, much more severe and constant practice is needed if any real measure of success is to be attained, and if this cannot be bestowed the amateur would act wisely in never sacrificing an opening at the ordinary game for the sake of the spot. If he does so he will assuredly verify the truth of the old saying, that the spot has lost far more games to ordinary players than it has ever won. Still, it stands unrivalled as practice in winning hazards combined with getting position for another similar stroke; and even moderate familiarity with its variations and their results is of much advantage to the average player who cannot give the time and attention needed for their complete mastery. Hence he is recommended to practise the stroke as much as possible, and when some certainty in its execution is reached to take advantage of his knowledge and skill when favourable opportunities present themselves in games, but cautioned not to neglect ordinary openings for the sake and on the chance of making a few spots. It is difficult to say when that stage is reached at which it may be sound policy to throw up an ordinary for the sake of a spot break. Circumstances vary so much (and prudence must take them all into consideration) that what is wise in one case may be foolish in another,



THE LONG REST

whilst it should never be forgotten that, as a rule, failure to make the hazard results in an easy break for the adversary. Taking a considerable class of amateurs, those who can occasionally make breaks of thirty, and who perhaps once or twice in a season make fifty, their average score is probably nearer four than five—that is, they take nearer twenty-five than twenty innings to score a hundred. Now at first sight it would seem that as soon as a player of this class was fairly certain of making three or four hazards he might reasonably discard the ordinary for the spot game, because such a break would be double or treble his average, but he would scarcely find it advantageous to do so; for, having made say four spots and failed at the fifth, he would leave the red ball over a pocket, so that an equal opponent was nearly sure of three, and might get six, in addition to the chance of making his average four. Hence the advantage is largely discounted, but very little more than four hazards as a measure of spot play will give the man who can make them a distinct superiority. He does not play the all-round game wise because he can make from six to ten spots, quite the contrary, and soon experience will act as a safe guide when to make use of them and when to play the ordinary game. If an amateur improves on this and becomes capable of making ten spots commonly and twenty occasionally, he passes into a higher class, the average of such a player would probably be seven or eight, and he has reached a stage to maintain which constant practice is required. Beyond this the amateur becomes gradually so merged in the professional that it is difficult to define the differences in their play, the excellence of which mainly depends on their state of training. This is specially true in respect to spot play; the late William Cook, whose delicacy of touch was unrivalled, has recorded that if he ceased to practise even for a week his execution suffered. So it will be readily understood that an inferior player, whose practice is much less, soon loses touch, and is very apt to hurt his game rather than benefit it by too persistent employment of this particular stroke.

On the other hand, the general game is greatly assisted by improvement in making winning hazards, and hence practice of spot play, though wholly insufficient for producing a spot-stroke player, may yet vastly improve the all-round game. Without it the modern game played at the top of the table is impossible, that being, in fact, merely a development of spot play into which the element of cannons has been introduced, whilst the number of consecutive winning hazards is limited.

Again, of all breaks made on the table none is more genuine, none owes less to chance, than a series of spots, and it is far from impossible that its monotony, as it is called, does not in a great measure arise from the absence of luck. Partly, at any rate, from this, and partly because the complaint of monotony was judiciously fanned by those whose performances at this stroke were not of the highest order, spot play fell out of fashion, and in the present state of public knowledge and education in matters concerning billiards it is not likely to resume the position it legitimately held for many years. As has happened to the spot stroke, so in course of time and with far more reason will cushion nurseries of cannons be in turn abandoned, but what will take their place it is difficult to say. It may, however, be safely affirmed that the former, having genuine value, will continue to influence the game, and consequently will be practised, whilst the latter, being made by trick, of little service beyond the continuation of the series, will when once discarded perish for ever.

The positions and their variations from which the spot stroke should be practised have been defined in most books on billiards, amongst which the treatises by Bennett, Cook, and a small volume by Mr. J. P. Buchanan may be mentioned. There is no new position to illustrate, and even the modes of play do not greatly vary, though where one player will elect to get position from two cushions, another will obtain it from one. And it is well to remark here that perhaps in no strokes do the different qualities of ivory and bonzoline balls make themselves so evident; whilst with ivories in a certain position a following

stroke off two cushions would be the preferable mode of playing, with bonzoline balls it would undoubtedly be better to play a stab from one cushion only. In some strokes the advantage clearly lies with ivory, in others as clearly with bonzoline, and so it may be said than on the whole the merits of either sort of ball are about equal. But bonzoline is cheaper, and can be got more uniformly accurate in shape and weight, hence it is not unlikely to supersede ivory in a great measure, therefore, a mention of the differences of behaviour as a warning to players is not out of place in this chapter. It is of course understood that some sets of bonzoline balls are more like ivory in behaviour than others, and then the warning is scarcely required, but in other sets the difference is marked and cannot safely be neglected. When playing it is better to adhere to one or the other sort of balls, and to practise with the kind selected. It is also desirable to practise each position and variation separately till confidence is acquired, and then gradually try to make breaks. It will often be found that, after certain positions have been fairly mastered, the work at a new one will cause the student to forget what he has learnt, and to fail when an old position recurs. For this there is no remedy save practice. The same thing occurs in other strokes, and those whose memory is retentive have no doubt a great advantage over those who soon forget, and the only way in which the latter class can at all compensate for their defect is by working harder and longer at each stroke. By resolute labour they may bring themselves on a par with their more fortunately constituted brethren. It is an ordinary experience that at one time a player excels at winning hazards, at another he succeeds with every follow, whilst he fails with every screw, again, he will find much certainty in playing fine strokes one day, whilst the next he can do none but the simplest of that sort. So it is with the spot stroke, and against failure there is no remedy but hard work, involving not improbably a return to the simplest one-ball practice to correct inaccurate delivery of the cue. In playing or practising the spot, the cue should be constantly

chalked, or the requisite delicacy of touch will be lost, and miss-cues will result ; side should never be used when the stroke is possible without it, for the actual hazard is by its use at once made a difficult stroke. Stab or screw are much safer because the cue is delivered on the central vertical line of ball 1, and they can in a great measure supersede side, but there are strokes in which the latter is obligatory. Again, contrary to what is often recommended, a free style of stroke is, we believe, to be preferred to very great delicacy. The latter is often the result of timidity or nervousness, which is sure to be soon fatal to accuracy, it also places the player far more at the mercy of untrue balls or table. Readers whose experience dates from the early seventies will understand precisely what is meant if they recall the play of William Cook and John Roberts, junior. When balls, table, and player were all that could be desired, Cook's delicacy of play gave him a distinct advantage at the spot ; but let any little disturbing element intervene, and Roberts's freedom of stroke carried all before it. It was a far better style for lasting, and rendered him far less dependent on absolute perfection of implements. It is just the same in other strokes—trying to be too clever, too delicate in strength, is not to be recommended ; in nursery cannons it results in leaving the balls touching after every third or fourth stroke, whereas a firmer delivery of cue will result in a far longer break. No doubt the general fault of beginners is to play too hard, and the reason is obvious ; brute force in all things precedes science. But excessive strength is found often to cause disaster, and when that is realised, and the student has learnt how to compensate for strength, he is very apt to fall into the opposite extreme, and to play in too slow and hesitating a manner. Of two players, there is more hope for the one who strikes rather too freely than for the other who just fails from want of strength, for the man who is too quick rather than for the man who is too slow.

The limits within which it is prudent to confine spot play may be roughly ascertained from the accompanying figure.

s is the spot, s p and s p' being the paths which the red ball should travel, in order that the pocket, which is somewhat blind, should be enlarged as much as possible by directing the red ball to the shoulders of cushions 2 and 6, thereby avoiding the dangerous shoulders of cushion 1. A A' is a straight line passing through the spot parallel to cushion 1. s B and s B' are prolongations of the paths of the red ball, so that if ball 1 be placed on either line, the hazard is played full ball. s c and s c' are each 60° from A A', leaving an angle of 60° , c s c', in which the spot cannot be played. Within the remaining angles, A s c and A' s c', the stroke may be considered possible,

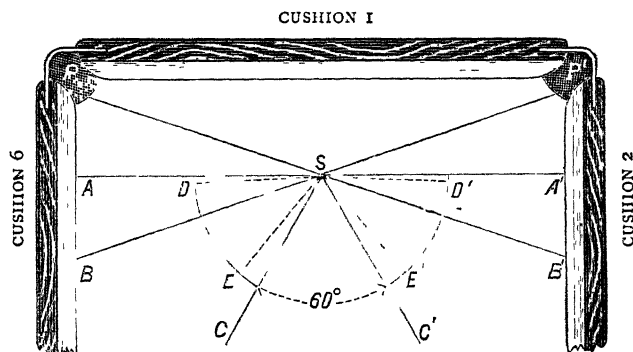


Fig 1

but the practical limits are much smaller. It is unwise to attempt to lay them down dogmatically, for those which are right for one man are wrong for another, and therefore advice must be general. Perhaps the simplest definition is to recommend that play be confined within the dotted lines s D and s E on one side and s D' and s E' on the other, D, D', it will be seen, are but very slightly below the line A A', and s E, s E' are at angles of 50° with A A', the arcs D E, D' E' being 18 in. from s. Within these limits endeavour should be made to leave ball 1 after each stroke as nearly as possible on the lines B s or B' s, and from six inches to a foot distant from s. It is

just as bad a fault in spot play to get too near the red as to get too far from it, in fact, of the two, it is, in the same way as the extremely soft play already referred to, the more objectionable, for a very slight error of strength will result in the loss of position.

Spot hazards may be conveniently divided into those above the full ball strokes on the lines $B P'$, $B' P$ and those below. Of the former there are two classes, the drop stroke and the stab follow. The limits are marked as before, D , D' and E , E' .

Commence with a stroke on the limit line from D to s , and place ball 1 about eight inches to a foot from the spot, ball 2 (the red) on the spot

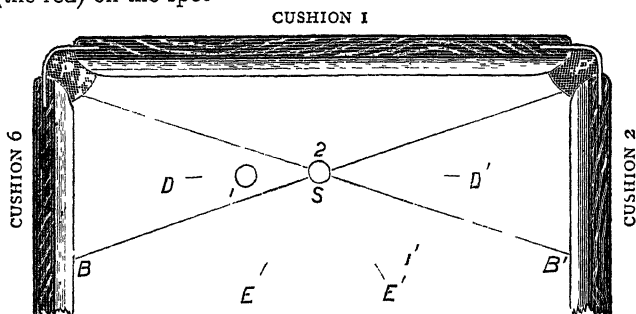


Fig 2

Play ball 1 rather below centre, a gentle No 1, the strength being just sufficient to carry ball 2 into the pocket, ball 1 after the stroke will rest in a position near r' .

This stroke can be played in a variety of ways, but the plain stroke is unquestionably the best. If there is much nap on the cloth, right side may be used in the hope that the ball's path will curve towards cushion 1, and if there is little nap the reverse or left side will have a tendency to keep ball 1 up the table; but in either case the difficulty of making the hazard is greatly enhanced by the use of side, and the advantage is microscopic in the extreme.

The next stroke is an easy one, consequently the position is good for play. Instead of placing ball 1 on the limit line

from D to the spot, place it above, between the lines D S and B S. This is also a plain drop stroke, but as ball 2 must be struck fuller, it may be played with greater freedom. Place ball 1 as directed, eight inches to a foot from the spot, ball 2 on the spot.

Play ball 1 centre, a gentle stroke on ball 2; the former will follow through and come to rest about 1', a position somewhat similar to that played from, but on the other side of the table.

The first point to ascertain is the correct division of ball 2, and the next is so to regulate the strength that ball 1 should remain within a foot of the spot.

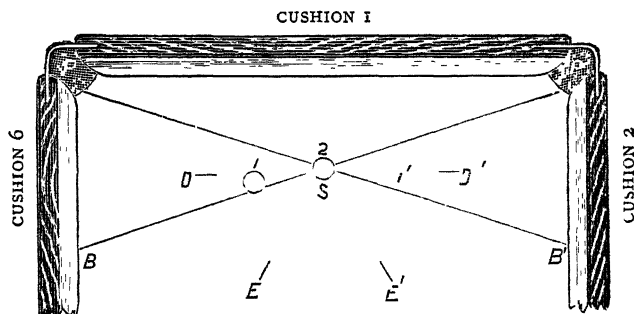


Fig 3

The stroke shown in fig 4 is played differently from the preceding ones, and requires a little making. Ball 1 is placed between its position in the last stroke and the line B P' for a full ball. It is, indeed, only so far from that line that a screw back would cause position to be lost.

Place ball 1 as directed at the same distance from ball 2 as before. Play a gentle stab on ball 1 rather below centre, ball 2, being struck nearly full, will acquire most of the velocity, whilst ball 1 will follow slowly through and obtain position on the other side of the table. The further ball 1 is from 2 the harder must the stroke be played, and the nearer the softer, indeed, when ball 1 is within six inches the stab is scarcely required; a medium No 1 strength one-quarter low will suffice. The stab

or screw corrects the tendency ball 1 has to follow straight after ball 2. If it did so position would be lost.

When ball 1 is moved further down the table than the position described in the previous example, so as to be on the

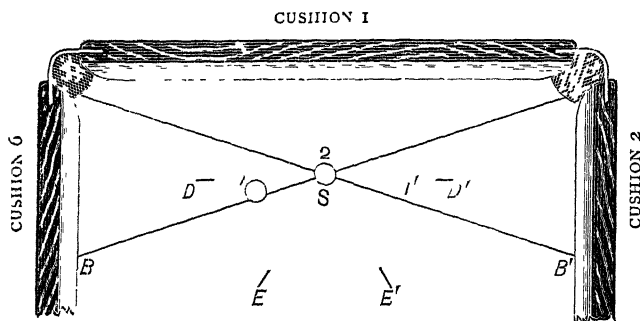


Fig 4

line B P', the stroke is evidently full, as the hazard is perfectly straight. Position is retained by screw back.

Place ball 1 as shown eight to ten inches from ball 2, and

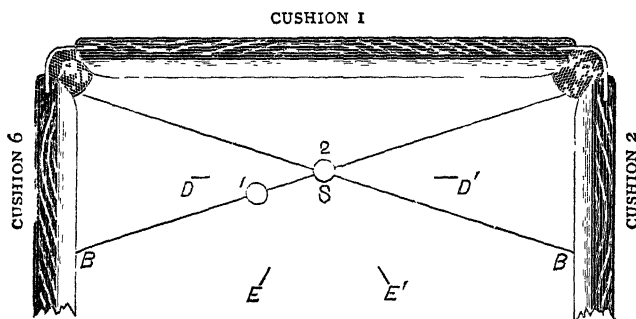


Fig 5

in direct line for the corner pocket. Play ball 1 one-half low, a medium No 1 strength full on ball 2, which should be pocketed, whilst ball 1 should return on the line S B.

Though this stroke seems very easy, yet no position for the

spot requires longer and more careful practice. At first, beginners will find that they cannot make two similar hazards in succession; either ball 1 will have left the line s b, or it will have travelled on it too short or too great a distance from the spot. These errors can only be cured by practice. If the screw-back is not straight, ball 2 has not been struck full, and for correction it is as well to remove ball 2 to another part of the table, say the pyramid spot, where there is no question of making a hazard, and there playing solely for trueness of screw back. After delivery, keep the cue exactly in position, it should then point absolutely to the centre of the pyramid spot, and ball 1 should return to the tip. Strict practice in this way is not wasted, the power of regulating the screw to compensate for strength is most valuable, and in time the student will find, to his satisfaction and profit, that with a very gentle stroke he can screw far enough back for another chance, and that the certainty of the hazard is greater as the strength decreases. As in other similar strokes, the further ball 1 is from ball 2 the more strength is necessary. When by misadventure ball 1 remains on the straight line, but very near ball 2, play may be continued by a *piqué*, struck gently down, the cue's axis being 60° or more with the surface of the table, ball 1 will return as before along s b or sufficiently near that line to leave another spot stroke. Again, if similarly left very close to ball 2, but slightly out of the straight line for the pocket, the hazard may be made and position even may not be lost by use of the plant stroke described at p 248, and exhibited on Diagram X (p 247). We do not think this has ever been mentioned in any treatise on spot play, and many persons who can make a considerable number of spots would consider the position lost were ball 1 left as described and give a safety miss. Yet a little practice will prove that the hazard, at any rate, is not very difficult, it is less easy to retain position, for freedom of stroke, amounting to double strength, is generally required.

Of the straight screw-back there are two variations which require great delicacy of touch and accuracy of appreciation,

for side has to be used in compensation for a minute division of ball 2. They occur when ball 1 is left at a suitable distance from ball 2, say, from $4\frac{1}{2}$ in. to 9 in., not precisely on the straight line BP' , but very near it. Being off the line, it is clear ball 2 cannot be struck full, but impact must be slightly to one side or other of the centre according to whether ball 1 is above or below BP' . The divergence of return due to this slight division of ball 2 may be counteracted by a minute allowance of side, and the straight path may thus be regained. Or the screw-back may be made without this compensation, in which case ball 1 will return either above or below the line BS , whence, though position for screw-back may be lost, spot play may be continued. It has generally been usual to dismiss this straight screw-back spot stroke somewhat contemptuously, as too easy to require much comment, an assumption which cannot be conceded. The stroke has to be played harder than many other spot strokes, and, therefore, greater accuracy is required. The slightest inaccuracy or imperfection of balls is fatal unless the player is a master of no ordinary capacity, and can, by his skill, apply the required compensations. What can be done with it alone has been conclusively shown by the best performers of the day, some of whom exhibit a marvellous power of retaining position directly behind the spot. The writer has seen Roberts do so with great ability; but his performances at this special stroke have been eclipsed, notably by Sala, who has made 186 consecutive screw-backs, Peall, who has made 184, and we believe Memmott to have wonderful skill, and to have made a much greater number of these strokes than any other player.¹

When ball 1 is below the line BS , and just so far from it that position cannot be retained by screwing back, the stroke must be differently played. Place ball 1 as shown below BS , and distant a foot or so from the spot. If the stroke were played full, ball 2 would just hit the dangerous shoulder of cushion 1. That will suffice to give alignment, which is of considerable importance for

¹ Memmott has made, we believe, the extraordinary number of 423 consecutive screw-back spot strokes.

this hazard, as freedom of stroke is required. Play ball 1 one-half high, free No. 1 strength or No. 2, on ball 2; ball 1 should follow through, and, returning from cushions 1 and 2, regain position on or near the line $B' S$. That is the simplest form of the stroke, which is never an easy one, and seems decidedly more difficult with bonzoline than with ivory balls; the former requiring a stronger stroke to recover position, and therefore endangering the success of the hazard. When even thus but slightly out of the straight line, some of the best players use side to compensate for strength, an advantage, doubtless, if the hazard striking be very perfect. Yet for ordinary persons

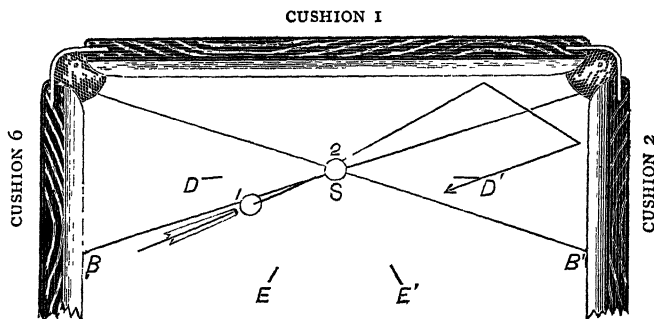


Fig 6

nothing is more difficult than to strike ball 2 truly when ball 1 is played with side; hence we counsel practice of this position with follow, but without side.

A very small variation of the stroke, however, makes the use of side imperative. If ball 1 is near ball 2, sufficient follow cannot be got on, and position can only be retained by the use of direct side—that is, playing from cushion 6, right side; this causes ball 1 to shoot from cushion 1 with increased velocity, and at a different angle from that of incidence, thereby impinging on cushion 2 at a point above or nearer the pocket than it would otherwise have done. The compensation for the side is a reduction of strength.

Again, if ball 1 is a shade further from B S than the position shown and described for the plain follow, the use of side becomes obligatory. As ball 1 is further from ball 2, follow is less necessary, or rather it becomes unnecessary to strike above the centre, as developed rotation supplies the necessary follow. This stroke, and specially the variations which demand the use of side, require long and constant practice, and are always difficult.

The position indicated in fig. 7 shows ball 1 further down the table, or from B S, than that exhibited in the previous figure. Here, with ivory balls it may still be possible to play off two cushions with a great deal of side; but it is generally

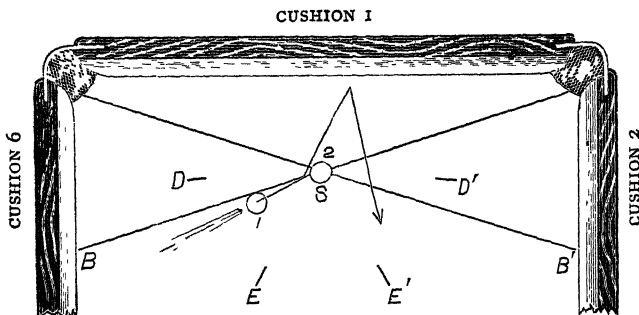


Fig. 7

better, certainly with bonzoline balls, to obtain position from cushion 1 only, by means of a stab. Place ball 1 as shown about eight to twelve inches from the spot, play a stab through the centre downwards, the angle of the cue being ten or fifteen degrees with the bed, a free No 1 strength. Ball 1 will impinge on cushion 1, and return in the direction indicated. This stroke is not easy and requires considerable practice. It is also difficult to determine when it should be played as a follow off two cushions and when as a stab from one. No exact rule can be laid down; one player will adopt one way, another will choose another method. It is clear that where follow with side off two cushions ends stab begins, and

therefore there is one position exactly between the two which may be played either way. One's first impression or impulse is often a good guide, with the reservation that ivory favours the follow, whilst bonzoline favours the stab.

Similarly the stab is gradually merged into a perfectly plain stroke. With ball 1 further down the table than in the last example the stroke becomes easier. As it is represented in fig 8 nothing is required beyond the winning hazard and such regulation of strength as shall result in leaving another hazard from the opposite side of the table. Place the balls as shown, play ball 1 centre, No. 1 strength, on ball 2, so as to make the

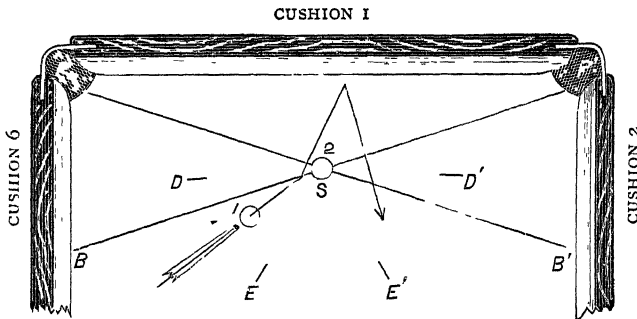


Fig 8

winning hazard, ball 1 will return to position from cushion 1 somewhat as indicated. If it returns too straight back—that is, too near the spot—in all probability ball 1 has been struck either a little below the centre or slightly to the left. The correction is obvious, and a very small allowance will cause ball 1 to come off the top cushion at a wider angle. The stroke becomes more difficult the further ball 1 is from ball 2, because it must be played with greater strength, which in turn may have to be controlled by delivering the cue rather under the centre.

As ball 1 is placed further down the table, it is evident that the winning hazard becomes finer till a point is reached at which position cannot be got from cushion 1 by a plain stroke. At

first all that is required is to play the hazard with a little right side, which causes ball 1 to leave the top cushion at a sufficient angle ; but as that ball approaches the line ES (the limit we have proposed for the spot stroke) various modifications of play are introduced. So long as the distance between balls 1 and 2 does not exceed a foot, and the former is within the angle ESD , the fine stroke with right-hand side may be played ; when the distance is greater, or ball 1 is on or very close to ES , position is best gained by a gentle stab-screw, whereby the ball returns from cushion 1, as shown in fig. 9 Different persons play this stroke and its variations—which are many—in different ways, and it would be gratuitous to say that one

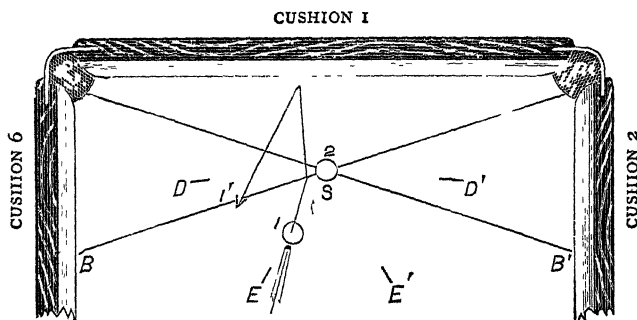


Fig 9

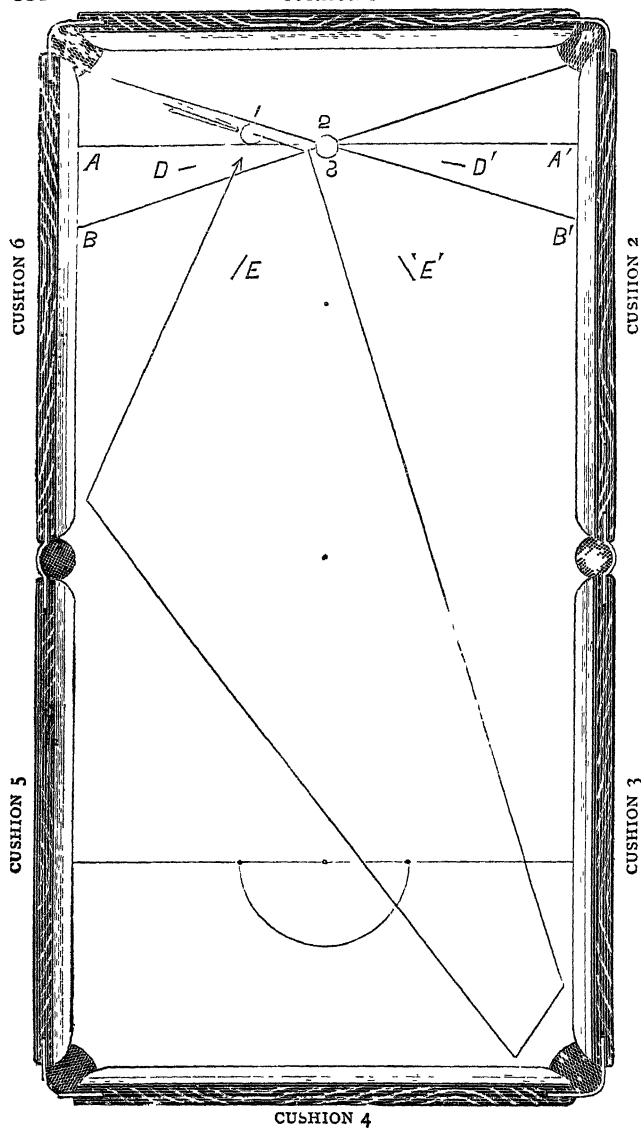
way was right and another wrong. So long as the hazard is made and a good position is left no one can condemn the stroke, though one man may get position on one side of the spot and another man on the other side. Some players habitually use the reverse or left side if the stroke is played from cushion 6, in order to keep sufficiently away from the spot ; but for reasons already given the use of side when attempting winning hazards is unadvisable. Sometimes it is obligatory, and then the risk of missing the hazard must be taken, for there is no doubt that even for the most accomplished hazard striker side greatly enhances the difficulty of the stroke.

It is doubtful whether any further drawings are necessary

to illustrate the spot stroke ; they could no doubt be multiplied almost indefinitely, and one would be found to approach its neighbour so closely that even an educated eye and a much more elaborately drawn set of plates than those possible on the present scale would fail to detect the difference. The stroke must be taught by a master, and should occasionally be practised under his supervision, when much that is difficult to make clear on paper will at once become evident, and the variations of strokes (that is, those which are intermediate between the examples here given) may usefully be set up and played. It may be desirable to say that in each of the figures the nomenclature of fig. 1 has been retained the letters D, D' and E, E' representing the limits within which the stroke lies, and B P', B' P are always the straight lines through the spot to the pocket. The lines D S, E S, &c., have been omitted in order that the figures may not be needlessly complicated. It is of course understood that the strokes should be made from both sides of the table, and it will very likely be found that whereas, playing from one side, there is a tendency to strike ball 2 rather full, from the other side the error is just reversed. This may partly arise from physical peculiarity—may be, in fact, an evidence of the personal equation or error of observation which everyone has to some extent—but it will often arise from error in the cue's delivery, and, if so, will be greatly improved, if not wholly eliminated, by reversion to one-ball practice to secure truth of the centre stroke.

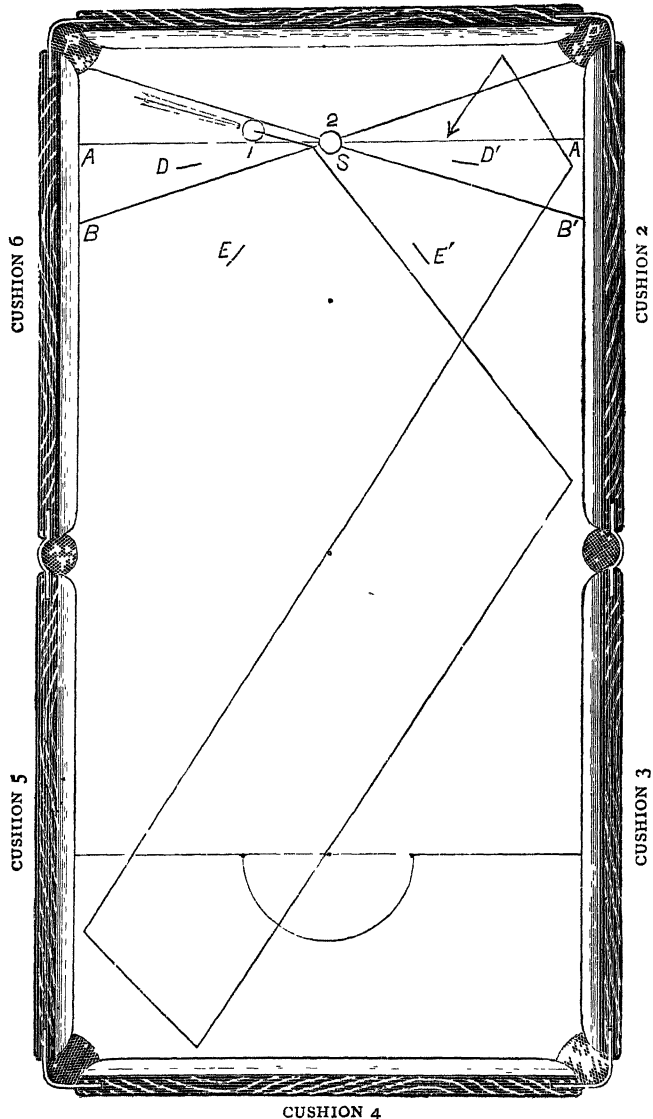
Before leaving the spot stroke the methods usually adopted to continue the break or to obtain safety must be noticed

When ball 1, failing to regain position, is left above the spot, or nearer to the top cushion than the spot, several alternatives are presented. If for any reason it is wished to continue spot play, the hazard may be made with strength to cause ball 1 to return to position after going round the table and striking at least three cushions. This stroke, though not so difficult as it may at first sight seem, is not to be recommended, chiefly because getting the exact strength must be to a great



CUSHION 4

Diagram I



CUSHION 4

Diagram II

extent a matter of luck. Also when the necessary strength is used the hazard is very uncertain. It is more or less a fancy stroke which greatly delights the gallery, and is illustrated in Diagrams I and II. Peall usually plays off three cushions, whilst Mitchell generally uses five. It is much sounder play, when possible, to drop the red into the pocket and lie near cushion 2 for a losing hazard (see fig 10); and if that be impossible or

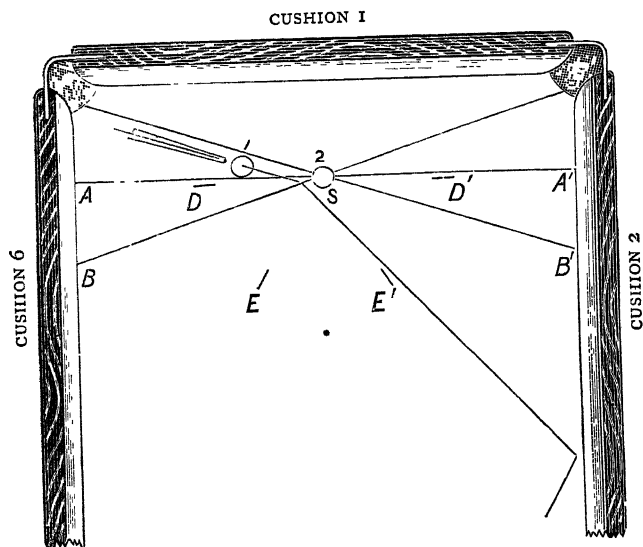


Fig 10

very doubtful, then a miss in baulk or a double baulk should be played. The latter stroke, or one of the same type, will be hereafter explained when dealing with safety.

This chapter may be closed—as, indeed, it was commenced—by reiterating the opinion that, whether the all-in game be tabooed as monotonous or not, the spot stroke is, and, as far as can be seen, must remain, of first-rate importance in modern billiards, and its study and practice will well repay such thought and work as may be bestowed on it.

CHAPTER IX

SAFETY AND BAULK PLAY

THE subject of this chapter, though of very great importance, is unquestionably of much less interest than the consideration of making strokes, just as in war attack is preferred to defence. Yet no general is fit for command who does not well understand defensive tactics, and in the same way a billiard-player must often play a defensive game. In the first place, such a game is advisable when the adversary is a better player, he presumably will give points, and almost certainly will try to force the game, which may often be saved by prudent play. Again, when in possession of a great lead a defensive rather than an enterprising game is to be recommended, whereas, if behind, every reasonable endeavour to score and get a break should be made. It is a difficult matter to say how far a cautious game should be advised, for whilst prudence is praiseworthy, timidity, or cushion-crawling, as it is termed, is contemptible. Speaking generally, and considering average people, it may be said that if there is a small stake on the game, or if, what is in effect the same thing, the loser has to pay for the table, quite sufficient caution will usually be shown; whereas where there is neither stake nor payment great laxity in playing is likely to result. The same thing is seen in professional play; nowadays there is rarely a genuine match, the stakes are more or less imaginary, and the consequence is that the strict game suffers if it seems to interfere with taking gate-money. One evil effect of general laxity of

play, neglect of etiquette, and so on, is that if occasion should arise for a serious game caution is very likely to be completely overdone, and a better player may, by adopting over-cautious tactics, actually throw the game into the hands of a more ignorant performer. No doubt, as in most other things, a middle course between temerity and timidity is best. It may be said that safety should be played for when there is no reasonable chance of making a score, and from this it follows that an inferior player should often content himself with giving a safe miss when a superior player may try to continue the game.

Safety is sought for in many ways, but with the majority of amateurs is more often the result of accident than of design. The simplest form, and that which is most familiar, is exhibited at the opening strokes of a game. The person who commences has the red ball on the spot, and may play at it if he please, but he rarely does so, preferring to give a miss in baulk. The adversary then has all the chances which the other player had, with the addition of those of a cannon; yet, unless the latter be very tempting, he too follows suit with a miss below the middle pocket, choosing the right or left so as to leave the squarer angle and more difficult score. Sometimes there is a good deal of fencing for the first opening, and whenever a miss is given endeavour should be made so to place ball 1 that not only is it difficult to score off, but that at the same time the adversary is forced to try for a stroke beyond his powers, or at any rate to disturb the position. He is then at a disadvantage, for he cannot give a miss because the other player has an easy stroke on the balls, and if he fails to score a good opening may be left. In giving a miss endeavour should always be made to place ball 1 in a commanding position, as well as in safety. All misses must be played with the point of the cue, and it is often advisable, if a careless player gives the miss otherwise, to insist on his making the stroke over again in the proper way. Another general rule is that when playing a miss back into baulk it is advisable to play from one or more cushions rather than direct for the desired position. The stroke may thus be played stronger, and the

danger of failing to reach baulk is avoided. Another mode of playing for safety is to make a double or single baulk when the opponent's ball is in hand, and there is yet a third mode, respecting which it is difficult to write, but which exists none the less, and that is so to regulate play that if failure to score should result as little as possible is left. Such a game, though fatal, we imagine, to anything like free play and long breaks, is yet very effective amongst players of moderate capacity. It will not, however, be seriously disputed that excessive safety play and use of obstructive tactics tend to alienate the sympathy of spectators, often most unjustifiably; witness the delight with which the public welcome a score in baulk from a safety miss, even when success is gained by the most palpable fluke. They seem to say, 'Serve the cautious man right for his timidity'; and the only persons who appear to hold other views are those who have backed the prudent though unfortunate player.

Whilst on the subject of safety, it is well to consider the question of pocketing the adversary's ball, and giving a miss in baulk. This mode of play is generally resented, and it is at best a confession of weakness, yet there are times when it is the game, and should be played, and the outcry against it should be promptly put down. It is one of those matters in which sentiment is allowed to outweigh expediency. Yet no wise man will neglect sentiment; and it is probably better to lose a few games by not availing oneself of the unpopular stroke than to gain them and lose the goodwill of the company. Nevertheless, there are times when a man may be greatly blamed for omitting to take advantage of the opening; for example, if his score is 95 out of 100, and he has the opportunity of putting his adversary down and giving a double baulk, should he neglect to do so and, in consequence, lose the game, neither he nor his backers are likely to be pleased. So, perhaps, though sentiment is strong, business is stronger, and each may prevail at different times and under different circumstances without offence.

A few examples of safety and baulk strokes will be found in the following diagrams

Diagram I —Ball 2, say the red, safe near cushion 1; ball 1 as shown near cushion 6, ball 3 in hand. Play ball 1 a plain medium No. 1 strength against cushion 3, whence it will impinge on cushion 4, and travel in the direction indicated. Even if ball 1 occupy the position 1', it is still advisable to give a miss in baulk by striking cushion 3 in the first instance.

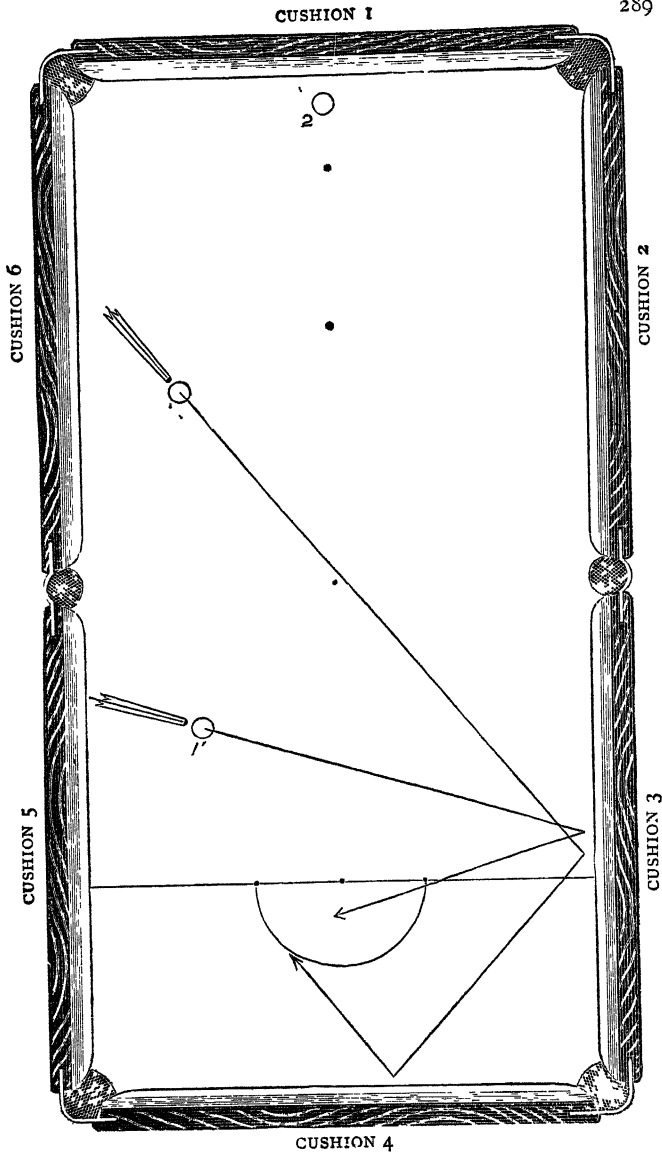
Diagram II Example A —Ball 1 in hand, ball 2 over right top pocket; ball 3 angled for ball 2, which is supposed to be the red. Ball 1 should be played a No. 1 strength to the top cushion to rest near ball 2, where it cannot be directly struck by ball 3. The best chance of disturbing the arrangement is to play ball 3 off cushion 5 or 6.

Example B —Balls 2 and 3 as shown, the former being the red, ball 1 in hand. There is a certain winning hazard from ball 3 on ball 2, and if ball 1 has to play he should give a miss out of baulk, but directly in line with balls 2 and 3, and as close to the latter as possible. The hazard is then much cramped. Unless the balls are all close, a miss of this sort would be imprudent, for several solutions of the difficulty would present themselves to the player of ball 3.

Diagram III. : Example A.—Ball 2 near or touching cushion 1 as shown; ball 1 conveniently near it; ball 3 in hand. Play ball 1 a low screw on ball 2, rather fuller than half-ball, but carefully avoid a kiss, with strength about No. 2. Ball 1 will remain under cushion 1, whilst ball 2 is doubled to baulk. This is an excellent type of stroke, for by means of the screw ball 1 returns to the cushion further from the pocket than ball 2, and is almost always perfectly safe.

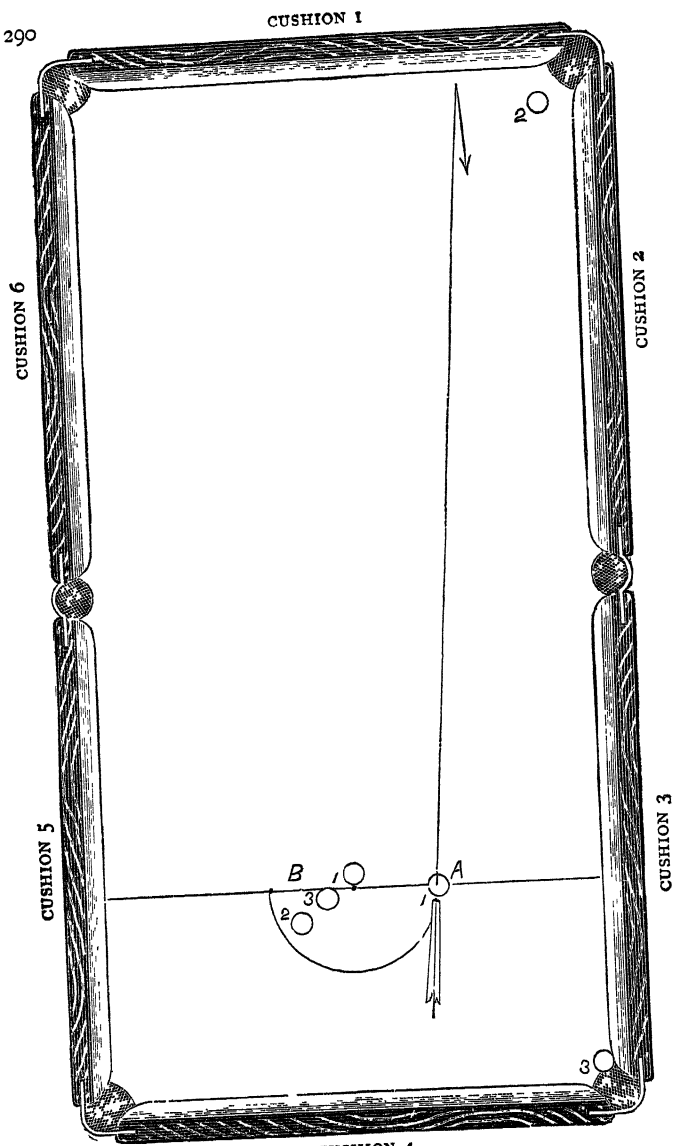
Example B.—Balls 1 and 2 as shown; ball 3 in hand. Play ball 1, with right side, a gentle stroke on ball 2, fine, so as to cut the latter towards the right bottom pocket; ball 1 will come off cushion 3 and rest in baulk.

Diagram IV.—A very useful type of stroke is here exhibited. When playing the spot stroke, position is often practically lost by ball 1 remaining very near the line AA' parallel to cushion 1, either above or below it, at such a distance from ball 2 as to



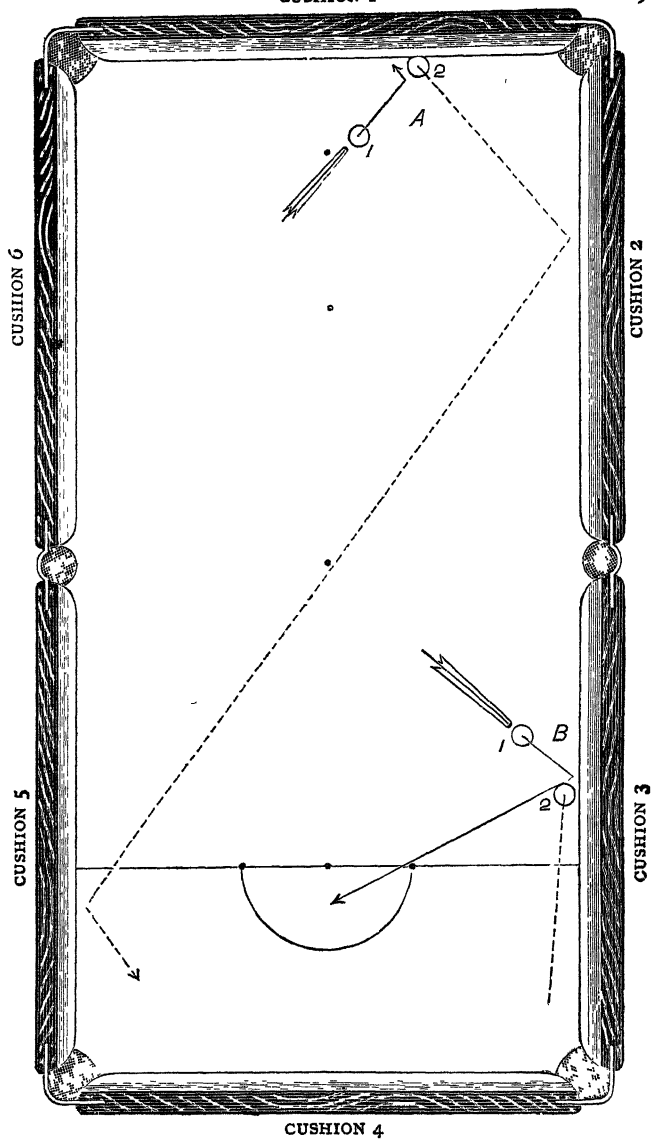
CUSHION 4

Diagram I.



CUSHION 4

Diagram II.



CUSHION 4

Diagram III.

make the hazard very dangerous. Similarly, in top of the table play, the loss of the adversary's ball, whilst ball 1 is left somewhat as shown, necessitates safety play. Ball 3 being in hand, two courses are open for ball 1; either it may be played into baulk in the way shown on Diagram I., or the double baulk, which is not difficult, may be played. It is thus made: ball 1 three-quarters right about No. 3 strength on ball 2, one-quarter right; the paths indicated will be approximately followed. The usual fault with this stroke is to play too full on ball 2. If played fine with freedom and a little right side to ensure impact on cushion 5, and to avoid cushion 6, the stroke will generally be successful. A little difference in the position of ball 1 does not materially alter the stroke, which should be played until the winning hazard and position may be tried with reasonable chance of success. Play the stroke from both sides of the table till confidence is gained.

Diagram V.—What is said of the last stroke applies for the most part to this one, the difference being that ball 1 is above the line A A'. To make a double baulk, play ball 1 one-half low and right, about No. 3 strength, on ball 2, between one-half and one-quarter left. A little practice will show that there is considerable margin in the division of ball 2, within which the double baulk may be made; consequently the paths travelled by the two balls will diverge materially from those shown, which are for ball 2 about one-quarter left, or a rather fine stroke. Ball 1 may be moved either nearer the spot or nearer cushion 1, and the stroke may still be made, its limit being, of course, when the winning or losing hazard into the right top pocket becomes worth playing.

Diagram VI.—Two very useful and very common types of double baulk strokes are here shown; they should, like most of the other strokes, be practised on either side of the table till they can be made with certainty. Ball 2 need not be touching the cushion; some variation of play is required as it is moved away, but not more than may be left to the intelligence of the reader who has thus far followed the advice given in this

CUSHION 6

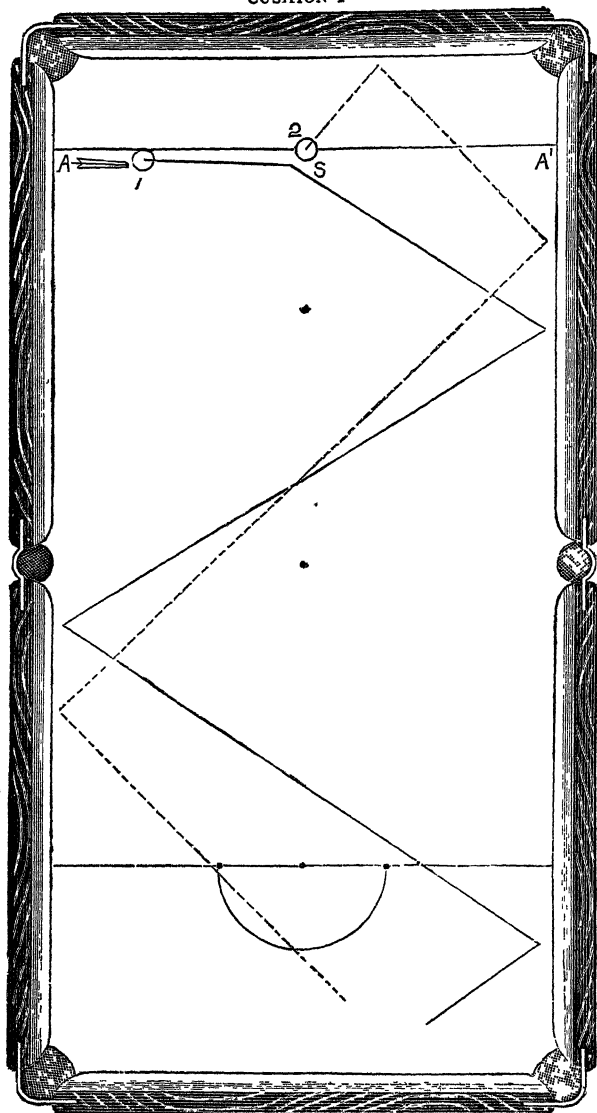
CUSHION 2

CUSHION 5

CUSHION 3

CUSHION 4

Diagram IV.



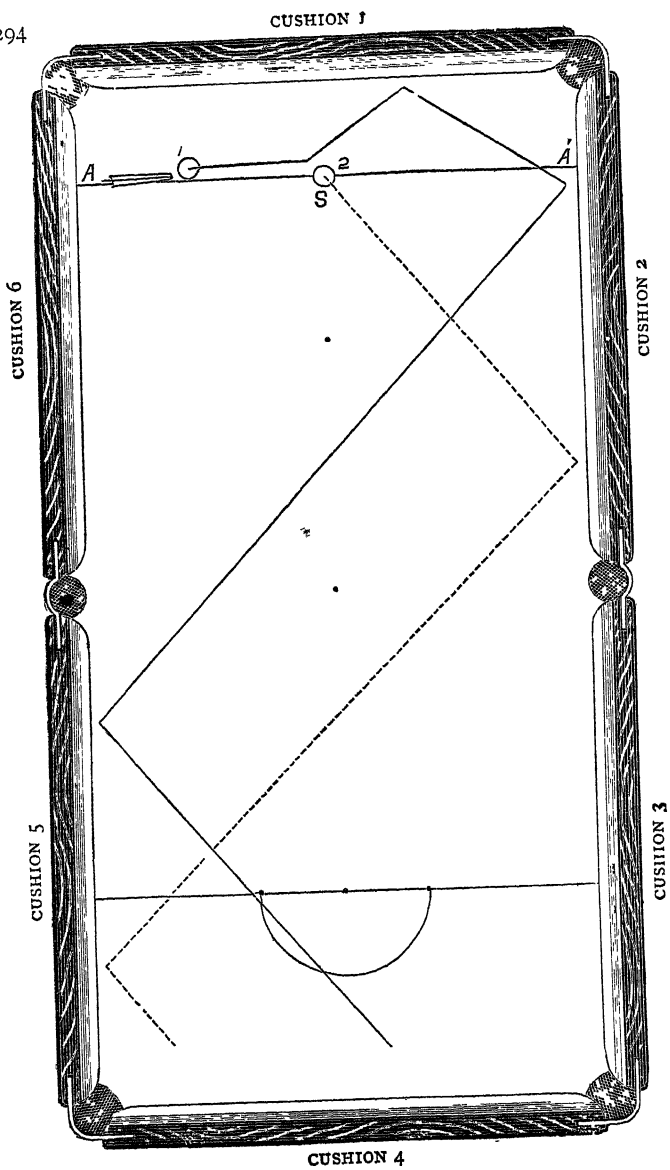


Diagram V.

volume In practice it will be found that the method of play shown for Example A holds good when ball 2 is close to the baulk line, and for a certain distance above it when the other mode of play comes in. With ivory balls 18 in. above baulk may be considered the limit within which the stroke A should be confined, after that, and up to the middle pocket, the double baulk should be made as shown at B. With bonzoline balls the limit of the former stroke is considerably extended, but the 18 in. limit, though it may easily be passed, will be found safe with any balls. The double baulk may be made with extraordinary differences of stroke; the ball which has to travel round the table may impinge on cushion 1 anywhere from the point P towards the right, but it is advantageous so to play that impact with the cushion shall be to the right of the spot in order that the chance of the ball catching the corners of or entering the right middle pocket may be avoided.

Example A.—Ball 2 (the red) near cushion 5 as shown, within 18 in. above the baulk line, ball 1 in hand. Place ball 1 towards the right of baulk; play one-half right No 3 strength on ball 2 one-quarter right, it will return from cushion 5 towards the right bottom pocket; ball 1, after impact with cushions 5, 1, and 2, will enter baulk towards the left bottom pocket. The finer ball 2 is struck, the nearer to cushion 5 will it come into baulk, and the less strength is required, which, however, must be compensated for by more side.

Example B is in a way the converse of A, for ball 1 performs the short and ball 2 the long journey to baulk. Place ball 2 as shown 18 in. or further from the baulk line, ball 1 towards the left spot of baulk. Play ball 1 from one-half to three-quarters low No 3 strength on ball 2 about three-quarters left (as full as possible without the kiss); it will rebound from cushion 5, and after touching cushions 1 and 2 will enter baulk in the direction of the left bottom pocket, ball 1 will return from cushion 5 towards the right bottom pocket. This stroke can be made when ball 2 is a little above the middle pocket, but it requires execution and is too risky to be recommended.

Diagram VII.—When the red represented by ball 2 is above the middle pocket as shown, a double baulk may be made, and the stroke is worth working at for the sake of acquiring some certainty in striking ball 2 with freedom fuller than half-ball. It is not in reality a very difficult stroke, but it is not one to be recommended at critical moments, when the simplest solution would usually be to play back into baulk. Yet there are times when it is obligatory to hit the red ball, as for example when the adversary is within one point of game; and since with practice the stroke may be successfully made three out of four times, and a person who has once mastered it is, even if out of practice, more likely to make it than to fail, it should in such a case be played.

Suppose ball 2 to be placed as shown, exact position by measurement being unnecessary; balls 1 and 3 are off the table and the former is to play. Place ball 1 on the baulk line for a three-quarters follow stroke on ball 2, so that it may strike cushion 1 well to the right of the spot. The diagram, though without pretension to absolute accuracy, will serve as a guide. Play ball 1 centre or rather higher a free No. 3 or No. 4 strength on ball 2 three-quarters left, or slightly fuller, which will then impinge on cushions 2, 1, and 6, entering baulk in the direction of the right bottom pocket. Ball 1 will after impact follow through ball 2 to cushion 1 and return thence to baulk. The stroke is a pretty one, and its practice is interesting.

Another type of baulk stroke is shown in Diagram VIII. It is clear that the single baulk would be simpler than the double, for by playing a more or less full stab on ball 2 it would of necessity run into baulk, whilst ball 1 would remain near the position which ball 2 occupied. But the double baulk is not difficult. Place the balls as in the diagram, play ball 1 one-half high with left side, a free No. 2 full (if anything to the left of full) on ball 2, which will after striking cushion 6 travel towards the right bottom pocket; ball 1, following through ball 2, will strike cushion 6 at the same place, but by reason of

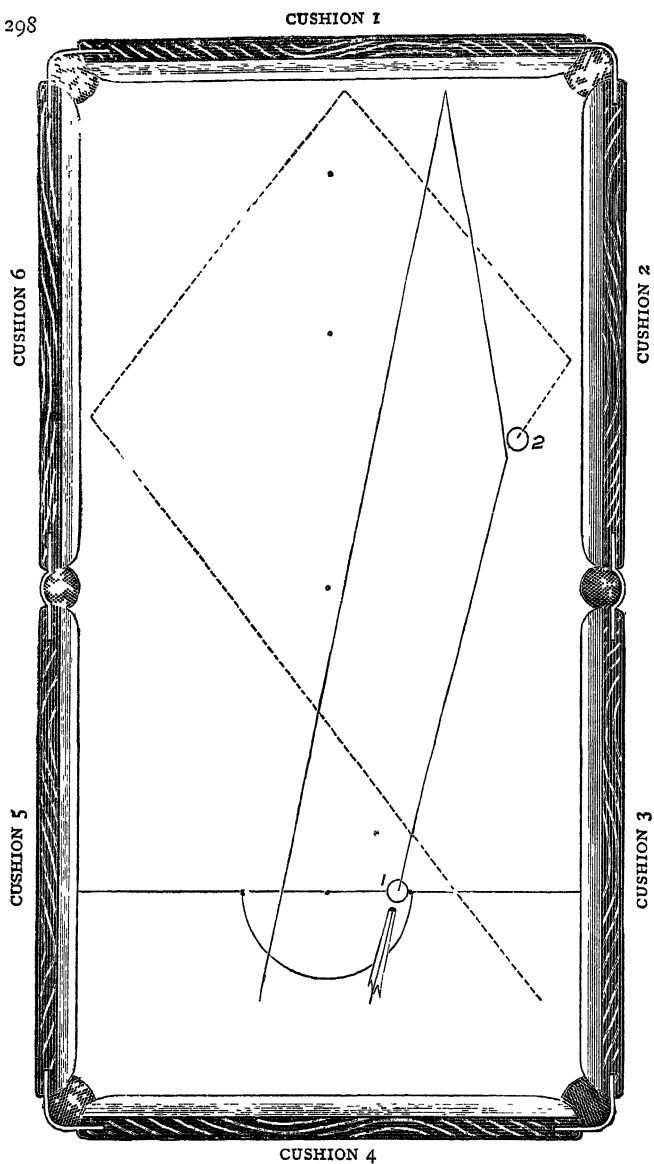


Diagram VII.

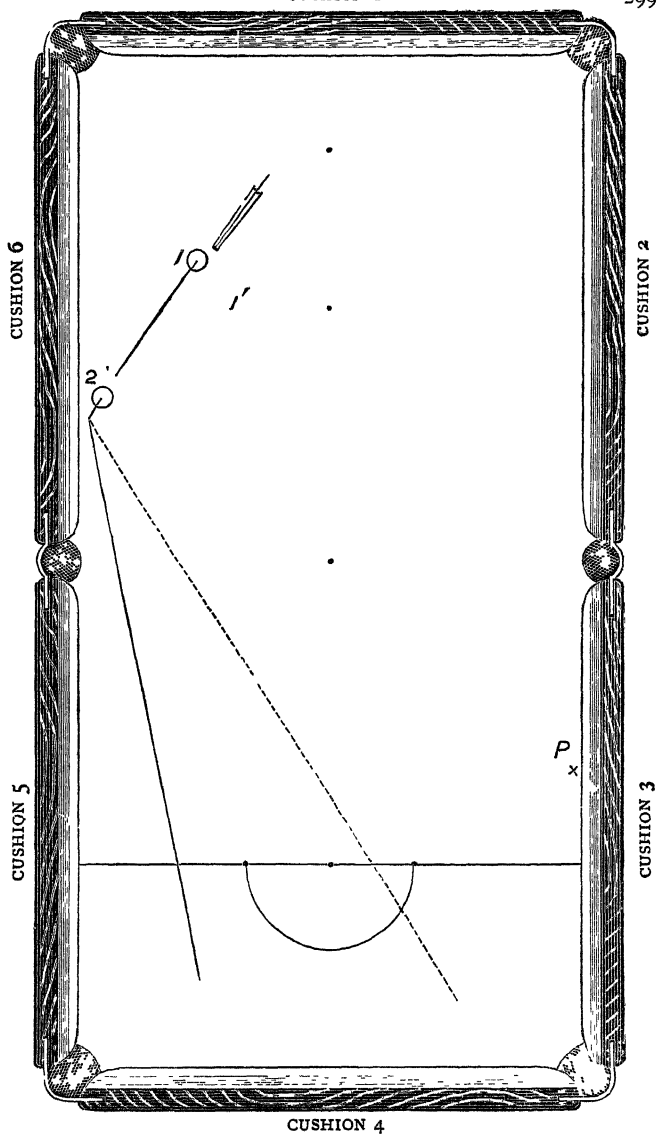


Diagram VIII.

the follow and side will shoot off at a different angle, keeping nearer cushion 5. When ball 1 approaches position 1', the stroke is similarly made, but must be played a little harder, for ball 2 will strike cushion 3 near P, and thence enter baulk. This class of stroke may be set up on either side of the table almost anywhere between baulk and the top.

There are, of course, numerous other positions whence a double baulk may be played, either with or without the help of a cushion ; but the examples given will, it is hoped, be sufficient to show how in positions where the mode of play is not self-evident the strokes should be attempted. As a general rule, endeavour should be made to leave the player's ball and the red some distance apart, in order that the adversary may find it difficult to score from a cushion, or to disturb a comfortable arrangement. A useful set of strokes for such score or disturbance is shown in Diagram IX. The three variations should be practised, and then if in a game some intermediate stroke may be required, the player will be able to judge where to place his ball. The angle of return can also be controlled by the strength.

. Let balls 2 and 3 be in baulk as shown, and ball 1 be in hand. It is desired to disturb balls 2 and 3 with the chance of scoring. Play ball 1 from the right corner of the D, centre on a point P about seven inches from the right top pocket, No. 2 strength ; it will rebound from cushions 1 and 2, and following a path similar to that shown have a very fair chance of cannoning from ball 2 to ball 3. Again, place ball 1 on the centre spot of the D marked 1' ; play as before on P a free No. 2, and it will arrive at a point about 2'.

And, lastly, place ball 1 on the left corner of the D marked 1'' ; play No. 3 strength on P, and it will return to 2'' and have a chance of cannoning on 3''. If these strokes are mastered they give a wide scope for the disturbance of certainties left in baulk, for they can be played from either end of cushion 1, and if balls 2 and 3 are missed, ball 1 has generally sufficient strength to carry it some distance up the table.

CHAPTER X

BREAKS

IN Chapter III the term *break* was explained as a continuous score, or one made in unbroken succession, and the definition is in a general sense accurate ; nevertheless, it has amongst the better class of players a higher signification. With them it means a succession of strokes each of which has been played for, and so played that the next has been foreseen, calculated, and left as desired by the player. That is to say, a break to be perfect includes not merely making a stroke, but the preparation for another to follow. Hence the difficulty of making any given stroke is enhanced by the need of thought and of modification in play, in order that the balls may be favourably placed for the next attempt ; but, on the other hand, making the next stroke, that is, continuing the break, is so much more certain after reasonable preparation, as in the hands of even a moderate performer to more than counterbalance the drawback. Indeed, in many cases it is as easy to play the stroke in the right way as in the wrong, and the eye once educated selects the proper method without conscious effort, so that the difficulty referred to is reduced to a minimum, and the advantage correspondingly preponderates.

On the other hand, the great majority of amateurs, for whom the game is one of chance rather than of skill, either will not or cannot give the necessary attention to master its rudiments ; consequently, they cannot be said to play for breaks, nor is it desirable that they should make the pretence. They will score



A SERIOUS GAME NURSING THE BALLS

faster by concentrating their attention on the stroke before them, and by implicitly trusting to Providence for the next. It is true that they never make a break in the higher sense of the word ; nevertheless, they often succeed in putting together considerable scores and in defeating better players. For persons of this class—and let it be clearly understood that there need be no cause for shame in belonging to it, because many cannot give the time nor afford the money required for practice and professional supervision—a few general hints will suffice. What is ridiculous is when they pretend to a knowledge they do not possess, and ascribe their failures to playing for position, a crime of which they are wholly guiltless. Beyond these there are an increasing number of persons who have grasped the idea of playing a break, who desire to do so legitimately, and who can give some time and attention to the game, and now and then get a little professional instruction. Though such are undoubtedly in a higher class than the former, it by no means follows that they invariably defeat them. Their breaks though played for may very probably not equal by half the scores made by the others ; indeed, until decided progress has been made the difficulty before alluded to of providing for the leave will result in the immediate stroke being missed so often, as to more than neutralise the benefits which arise from occasional success. In time, however, the average play and rate of scoring of this higher class will surpass the performances of those first mentioned to such an extent that they can give a start of from one-fifth to one-fourth of the game. The best players of this higher class soon reach the standard of what for want of a better definition may be called good club play. That is to say, few players in London clubs can give them points, they make consistent scoring, and under favourable circumstances may play 250 points in an hour. This means a considerable aptitude for the game, as well as some knowledge of it, and more or less education. In fact, a standard has been attained which will be lost unless kept up by steady work. Comparatively speaking, very few gentlemen pass beyond this

stage, and when they do they seldom play in clubs. The reasons are obvious, in the first place they cannot get the tables for sufficiently long games, and they are liable in club rooms to all manner of interruption fatal to continuity of play; they further meet no opponents from whom they have anything to learn. Hence naturally they prefer to play elsewhere, and they often attain to a very high standard of excellence, in cases rivalling not without success high-class professional form. It must not of course be overlooked that certain natural qualities should be possessed by the student if he is to become a fine player, and also that men in every class as players may be fortunate enough to enjoy them. They will always be useful, and will often lead their possessor to victory when contending with a harder working but less gifted opponent. The most important of all is perhaps good health, for that covers a multitude of excellences, good nerve, good sight, quick and sound judgment, good temper. A good figure, too, is of great advantage, and it is better to be tall rather than short; yet how many short men have been and are fine players.

But these advantages will not of themselves suffice to make a player; intelligent practice and plenty of it are required, and the fewer or weaker the natural qualities may be the more must they be reinforced by work—*‘à force de forger on devient forgeron.’*

The system of classifying a player by means of his average break is a safe one, provided that the average is calculated from a great many games, and that the other person with whom comparison is made is averaged from the same number of games played under the same circumstances. Unless this is attended to results may mislead. The average break is found by dividing the points scored by the number of visits to the table. Thus if a player scores a game of 100 in 10 innings, the initial miss of course counting as 1, his average is 10; 20 innings give an average of 5; 25 an average of 4; and so on. This process if continued over a large number of games will give a result on which dependence may be placed.

But a little consideration will make it plain that unless the circumstances are very similar comparison between players based on their averages may be misleading, one table is much easier than another; one adversary plays an open game and gives many chances, another plays for safety and leaves no opening time after time; the size of the balls, the temperature of the room and the light, the order maintained, and a variety of circumstances will affect the average, and moreover affect it differently in different men. Hence care is necessary before assuming as a result of one or two observations that the average derived from them is trustworthy. Still it is less liable to mislead than unassisted observation, and a man who desires to play a match with another and who knows his own average is considerably helped by taking the latter's average, even if only from one or two games. If prudent he will allow a good margin in his favour to meet the unforeseen, for few things are more difficult to explain than personal questions concerning play and that most potent factor which we call luck.

As regards the first of these, it is a matter of common experience that men play differently—indeed, very differently—with different opponents. One man's manner, or style of play, or what not, is aggravating and irritating to another, and the feeling need not be mutual, yet the man affected will play many points behind his real game. It is no exaggeration to say that there may be three men, A, B, and C, equal players, yet a record over a great number of games might show that whereas A generally beat B and lost to C, B on his part generally defeated C. Such an anomaly is of course more likely to be found where men are acquainted with each other—indeed, without acquaintance personal peculiarities would not count for so much.

The second subject, that of luck, must be approached with much caution. One person, generally that one who is enjoying fortune's favours, will say that in the long run, as between man and man, luck is even. Indeed, he may go further and practically deny its existence, affirming, what is no doubt true, that

the laws of nature are not altered or suspended in favour of any player, and that effect follows cause irrespective of personalty. Another will declare that some men are habitually lucky, and that with certain players his chances are better than with others. There is truth probably in both contentions ; luck is more likely to be evenly divided between the players in a long than in a short game, yet we think no close observer would care to deny that some men seem habitually lucky at billiards, just as it is generally admitted that certain persons are good cardholders, and, again, that other men appear to be more than averagely unfortunate. The better the player the more ready is he usually to admit his obligations, but as a rule, though no less valuable, they are not so evident as the palpable fluke of the weaker performer. They consist of trifles, so to speak, which are summed up in the phrase 'a kindly run of the balls,' and enable the fortunate man to compile breaks and play with confidence, feeling that nothing can go wrong, whilst all the time, no evident fluke being made, he is credited with playing a fine game. His unfortunate antagonist meanwhile can do nothing right ; even when by dint of cue power and science he pulls off one difficult stroke after another, each leaves a more difficult one to follow, till failure is inevitable. And this is not all nor the worst ; for whereas Fortunatus on failing to score leaves the balls safe or nearly so, our unlucky friend can scarcely touch them without leaving one certainty after another ; finally, when attempting some impossibility, he makes the most undeniable fluke, at which the spectators smile in appreciation, whilst he is engaged in trying to solve the problem of why a fluke even should leave nothing to follow.

Luck plays an important part in most breaks, more in those all-round and what are called 'out in the country' than in top-of-the-table play, and least of all in spot breaks. With professional players it affects the results of games less evidently, and probably absolutely less than with amateurs, yet even with the former its power is immense. If they fluke seldom, they make far more of each piece of luck. For example, the writer

saw a match of 1,000 up between two very fine players, one of whom conceded the other a start of 100. He gave the usual miss in baulk, and his opponent attempted to screw in off the red. He failed egregiously, but drove the red round the table into a pocket, whilst his own ball after a strange career settled down beautifully for spot play. From this opening 100 spots were made, and the game when he broke down was called love, 404. Though play on both sides was of a very high order, the lead thus obtained made the final result almost a certainty.

In dealing with breaks, one other matter must be kept in mind ; it is very important, and must influence anything we have to offer in the way of advice, making that of necessity general rather than particular. This is, that what is the game for one man is not necessarily the game for another, and that no very moderate break can be twice played alike even by the same man. Still there are general principles which cannot be neglected with impunity, and attention to them will without doubt improve the chances of the most moderate performers. More experienced players adhere to them almost unconsciously, and some even are disposed to push them too far, thus occasionally sacrificing the break in attempting too minute and too perfect control over the balls. This is a rock on which many a game is wrecked, specially by players of great delicacy of touch. A freer player, who recognises the futility of attempting too great precision, but who at the same time never loses sight for an instant of the general principles which should guide him, and whilst obeying them leaves minutiae to take care of themselves, is far more likely to steer clear of trouble and to get home first.

A few words may suffice on the subject of nerve, a quality which is intimately connected with making breaks. All men at times suffer from nervousness, and its effect is paralysing ; judgment, sight, and muscular control are all affected, in some instances one might say arrested. Nerve is probably closely allied to courage, yet in many respects it is quite distinct ; and very often a player at billiards who is nervous has his failure

unwarrantably attributed to what is expressively though inelegantly called funk. Yet the man is no more a coward than the hundreds are who if called upon to make a speech suddenly find their tongues if not their ideas paralysed, he would face danger, moral or physical, with average intrepidity, but still under certain circumstances his play breaks down and he collapses. In so far as the question is between man and man—one person's nerve being greater than another's—we have nothing useful to say. One man is taller or healthier or stronger than another, so much the better for the fortunate man; but much that is set down by thoughtless spectators to fear is in reality want of confidence, which happily may be supplied by intelligent work. That, with ordinary care in living and with a resolution never to play for stakes which cannot be lost with complete equanimity, is the remedy which will be found most effectual.

Allied to this gain of confidence is the consideration of whether beginners should select for purposes of play a difficult or an easy table. The question is open to argument, and perhaps what may suit one man may not suit another. But judging from personal experience and from professional advice respecting training for a match, we should counsel commencing to learn on an easy rather than on a difficult table. Many persons have doubtless experienced the feeling that when they have made 20, 30, 40, 50, or some greater number of points, they are on the way to making a break, and therefore must be careful lest they should fail. The thought is fatal, and is quickly followed by collapse. The best prevention is to become accustomed to making such breaks, and that is most easily managed on a table where the pockets are not very difficult. As one's powers improve so may tighter pockets be encountered, but if the same game be played the limits of divergence of tables must be small. Half an inch or less in the width of a pocket necessitates a very material alteration of the game, which need not at this moment be further particularised.

A point of interest concerning breaks which may just be mentioned is that, although the tables and method of scoring

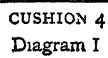
in the French game are different from ours, yet the standard attained by amateurs is, compared with professional form, much the same in each country. In a rough way professionals may be said to score from ten to fifteen times more than amateurs : that is, of course, comparing class with class in this way , an indifferent amateur occasionally makes 25 or 30 points, so a professional of not very high class may sometimes make 250 to 450, whilst the amateur who can occasionally make 100 to 150 is to his fellows what the professional is who can score from 1,000 to 2,000. A series of 100 cannons is a very fine break for a French amateur, so may 100 points be said to be a long break for an English amateur, though there are a few gentlemen of whom it may fairly be said that such a break is by no means unusual , they, however, have decidedly passed from amateur to professional form.

Now as regards playing for a break the way for instruction is cleared by the system on which practice has been recommended and strokes have been explained in previous chapters. A careful reader cannot fail to have noticed that in almost every type of stroke described, the position of the ball or balls after the stroke has been considered in a way second only to actual execution. The application of the knowledge thus acquired must chiefly be left to the intelligence of the player, who will, when several strokes present themselves, at once select either the easiest, or that which promises to leave most, according as he plays for a score or for the break. Still a few remarks may be of use to the very large class of players who cannot undertake close study of the game, and if they seem to more advanced readers self-evident and unnecessary, we must crave their indulgence and try to be brief. An important point to keep in view is as far as possible after a losing hazard to leave the balls within the parallel lines *P M, Q N* (see Diagram I.), and then they will usually be well in play. Very often, however, one of the balls will be left beyond these lines and virtually safe , when that is so, an opportunity should be watched for, and may sometimes be made, to bring the other

ball near to it, so that by means of a cannon it may be moved from its unprofitable situation.

Thus if the result of a few strokes has been to leave ball 3 out of play near a side cushion, ball 2 being near the centre of the table and ball 1 in hand, the game is to continue the losing hazards till ball 2 is so left that the cannon on ball 3 bringing it into play is easy. Suppose ball 2 to have been left exactly on the central longitudinal line of the table, in which case it is clear that the losing hazards into the top pockets are exactly alike. Yet, if ball 3 is in the position shown, play into one pocket will result in leaving the balls together, whilst if the other pocket be thoughtlessly selected the balls will be separated. First as a typical stroke let ball 2 be placed on the centre spot ; the losing hazard into either top pocket is a known practice stroke (see Chapter V. p. 172). Place ball 1 for the half-ball hazard, and play the stroke in the usual way, when ball 2 will stop near the left middle pocket, and it is probable that either a hazard or cannon will be left. The one serious danger of the stroke is that ball 2 should run into the middle pocket and the break be lost ; even then a miss in baulk would leave its player with the best of the deal, besides, the mishap can be guarded against by being careful not to play on ball 2 fuller than half-ball, and with rather less strength than is required if a middle pocket loser were desired. But if the hazard be made into the right top pocket, then ball 2, after contact with cushions 6 and 1, would stop near the right middle pocket on the opposite side of the table from ball 3.

This type of stroke or break should be played as indicated, so long as ball 2 strikes cushion 2 first, when ball 2 is so far up the table that (when the half-ball losing hazard is played) it strikes cushion 1 first, then the hazard should be made into the right top pocket. This will be at once seen by placing ball 2 on the pyramid spot, ball 3 being as before. Place ball 1 on the left spot of the D, and play the usual half-ball hazard into the right corner pocket ; ball 2 will return from cushion 1 towards ball 3. Place ball 1 on the right spot of the D, and



play into the left corner pocket, and ball 2 will return towards cushion 2 away from ball 3.

Again, with ball 3 as before, but ball 2 below the middle pockets, with a hazard from baulk right and left, ball 1 in hand. If the right middle pocket lose be played, place ball 1 for a fine rather than for a full stroke, in order that ball 2 may be cut towards ball 3; if the left middle pocket be selected, place ball 1 for a full rather than for a fine stroke, so that ball 2 after

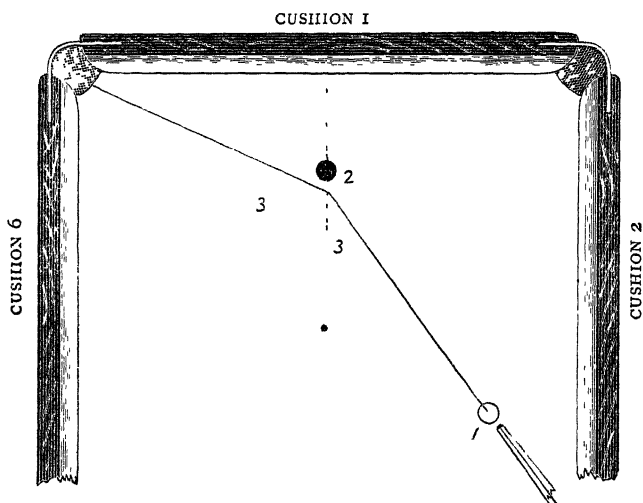
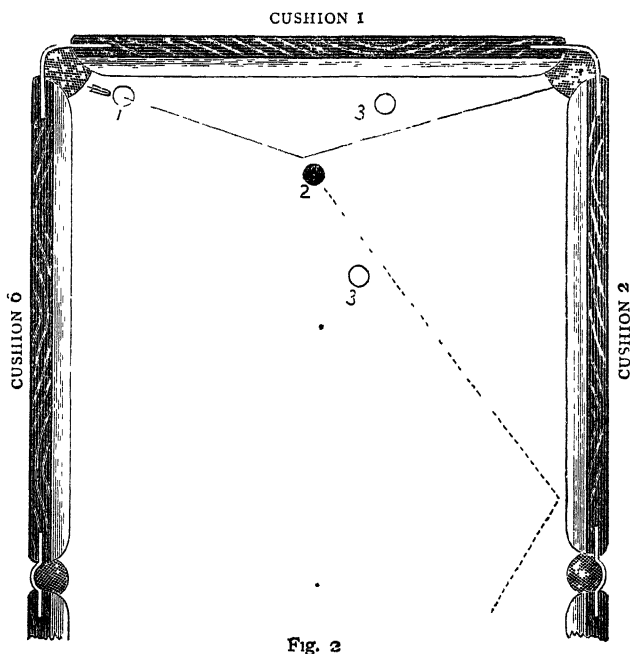


Fig 1

impact with cushion 1 may return to the left side of the table, and admit of bringing ball 3 into play

An excellent rule is to play known strokes in preference to inventions of the moment. Those who have practised the examples previously recommended will know with tolerable accuracy where ball 2 is likely to stop, at any rate in the commonest sort of plain strokes, and it is well to profit by this knowledge. Thus with the balls as shown in fig 1, where 2 is the red, and 3, 3 are positions for the opponent's ball, it is better, at any rate for those who are not considerably advanced,

to play the half-ball losing hazard into the left corner pocket, than to endeavour to secure a chance of a top of the table break by making the cannon. For the hazard is more certain to most persons than the cannon, and if the stroke is made balls 2 and 3 must almost inevitably be left in play. Similarly in the positions shown in fig 2, although the cannons from 1 to 2 and 3 are perfectly easy, yet it is better to play the



known losing hazard 1 from 2 (which is supposed to be the red on the spot) into the right corner pocket. Ball 2 will then be left over or near the right middle pocket, into which a hazard will be left, or if the stroke has been played without enough strength there may remain a cannon from which the balls should be gathered at the top of the table.

With balls 2 and 3 so left that there are plain losing hazards

into the middle pockets whilst at the same time, ball 1 being in hand, a cannon is as easy or easier than either hazard, there is some difference of opinion as to which stroke a moderate performer should play. In case of being within two points of game the cannon may be chosen as rather the easiest, but

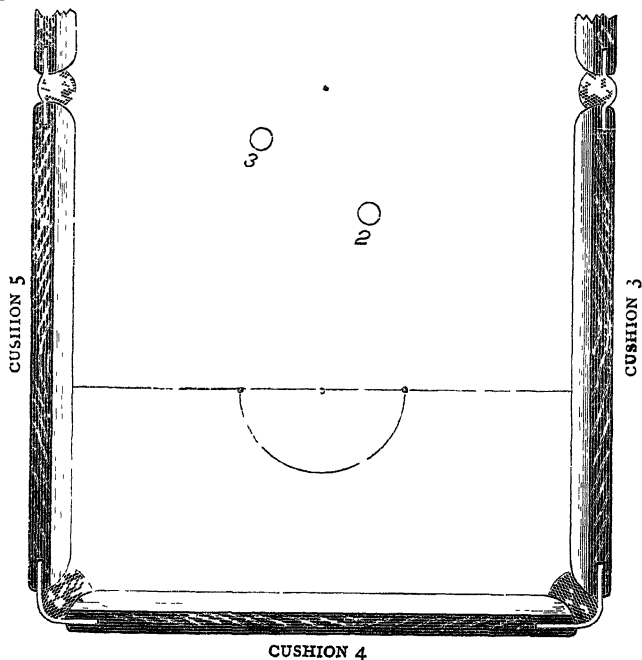


Fig 3

except in that case we recommend playing the losing hazards. For at the worst there are two easy strokes on the table against one if the cannon were played, totalling five against two. If, however, the balls were so placed that one of them was too far up the table for a plain hazard, then it is possible that the cannon might pay better.

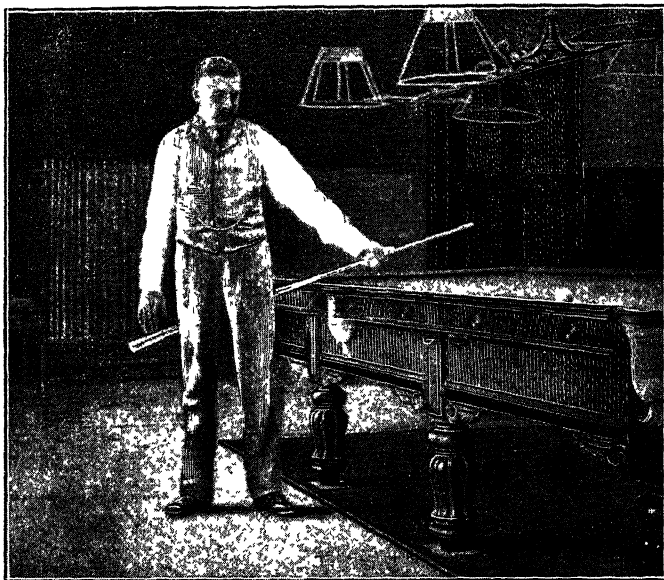
For the class of players to whom these few hints are specially offered it is, we believe, sound advice to say—do not vary your

strength of play greatly, accustom yourself to a free No 1 or No 2, and do not ordinarily depart from it ; avoid extremes of strength and the use of side, specially with winning hazards , master the plain half-ball stroke, and many other things shall be added to your score. Do not concern yourself more than you can help about your adversary's good or your own bad luck, and do not think it incumbent to explain for the instruction of spectators (some of whom at any rate presumably know more of the game and understand it better than yourself) the reasons of your failures.

Now in addition to the players just referred to—and they form the great majority—there are those who can devote considerable time and attention to the game, who can play the spot stroke in the sense of knowing how each position should be treated, and can usually make from five to ten spots, besides having a fair general notion of the game. Such persons represent the better class of club play, and from among them at rare intervals a few appear whose form approaches that of the professional. For their special behoof little need be said : they have acquired and practise unconsciously the principles already recommended , in order to improve in the matter of breaks they must work on professional lines, and may, within the limits which their powers prescribe, follow professional play. That is to say, it is not desirable to try to prescribe a separate style of break for persons who are fairly grounded in the grammar of the game, even though they may never attain great excellence. As a rule, they owe the length of their scores, which are often considerable, to small genuine breaks connected together by providential bounty ; every now and then in a score they are obliged to give sole attention to making the stroke, and what is left is therefore due to luck, which may be good or bad. The truth of this becomes apparent if they are set to a break which must be thought out and which does not often admit of adventitious aid, such as the spot stroke or a nursery of cannons. They will rarely make more than ten or twenty consecutive strokes, and how often

not more than five Nevertheless, their profit will lie in trying to follow the lead of the masters, modified, as may be required, by personal proficiency

And here, lest it may be justly said that the interests of the vast majority of billiard-players and of our readers are in



Preparing to play behind the back *the right way*

danger of being somewhat neglected in favour of a small minority who alone may reasonably aspire to professional form, we have much pleasure in introducing a paper by Mr. A. H. Boyd, who is well qualified to deal with the subject, on 'Every-day Billiards' From his paper, which is commended to the careful attention of readers, it may be gathered that he has successfully passed through many of the sorrows of the self-taught student of the game, and is now enabled to attain to a measure of his legitimate aspirations

EVERY-DAY BILLIARDS

By A. H. BOYD

As a great deal of the instruction contained in this volume may be too scientific for the ordinary amateur, it has occurred to me that a few simple hints, from a moderate player, who has experienced, and is daily meeting, difficulties which possibly a brilliant performer hardly understands, may be of some assistance to those who, like himself, are fond of the game, appreciate its fascinating variety, and are honestly anxious to improve.

The correct method of playing almost every stroke that is likely to occur in a game has been so lucidly laid down in previous chapters, that my efforts will be limited to pointing out where moderate players are apt to go astray, and to dealing with a few salient points, in the hope that I may be able to show what to avoid, rather than what to do or how to do it.

By the moderate player I mean the average player as found in the average club billiard-room, a man who is capable of running up 20 or 30, and who has on certain happy days passed the Rubicon of 50.

I believe the use, and particularly the abuse, of the expression 'power of cue' has led to more slipshod play, and done more harm to young players, than anything else. In ninety-nine billiard-rooms out of a hundred a steady, unpretending player, who makes simple strokes with tolerable certainty and with fair strength, is considered a far inferior performer to the gentleman who plays *every* hazard with side on his ball, who delights in extravagant screw shots, but who is supremely indifferent to the subsequent career of the object ball. 'Power of cue' unfortunately, as understood by ordinary billiard-players, means *want of command* of cue. The mere power of imparting side, or making screws, though valuable enough in itself, falls very far short of 'power of cue' as rightly understood. The real meaning of the expression is the ability to combine the

various elements, such as side, screw, follow, or stab with varying strengths, so as to convert a forcing shot into a soft screw, or a gentle stroke into a fast and fine shot, always with a view to improved position

Without the power of control or combination, the power of imparting side may be and very frequently is positively harmful. An enormous number of young players with a certain amount of aptitude for the game become so enamoured of this showy gift that they insensibly drift into the habit of playing every stroke, however simple, with side, and become absolutely incapable of striking their ball in the centre, thus increasing their difficulties at the outset. It is comparatively easy to strike a ball in the centre as often as may be desired ; it is next to impossible to strike it on the side in the same place a dozen times running. Hence, players who habitually use side constantly miss simple shots, because the amount of side they put on is continually and involuntarily varying

The worst case I ever met was that of a man who had allowed the habit to grow upon him so far that he could only strike his ball on the right side. The natural consequence was that half the table was practically closed to him. he would not attempt a jenny into the left-hand top pocket, and his long losing hazards were of course very uncertain. Many others there are, however, who, even when playing from hand, evince a decided preference for playing to a particular side of the table, and it is evident that, although possibly they don't realise it themselves, they have more command of one side than of the other. If this inclination is felt, it should be fought down at once by playing for the opposite side of the table ; and a little resolute discipline of this kind will soon eradicate the fault.

Curiously enough, moderate players rarely use side for following hazards near a cushion, although a liberal use of it converts an extremely difficult stroke into a comparatively easy one. The explanation, I imagine, is, that when they began billiards, they were told to hit their ball high in order to follow, and it is of course a difficult operation to put side on a ball

that is struck near the top. They, therefore, do not choose to increase the risk of a foul by aiming at the side of the top, and take some pains to strike their ball on or near the vertical centre line. Did they but know it, the same pains expended upon the same object, when playing ordinary losing hazards, would rapidly improve their game.

It is easily understood that from near a cushion a pocket is a very small target, and the margin of error in aim reaches the irreducible minimum. So that this follow is rightly considered by moderate players who play it in the way I have described as difficult, dangerous, and hardly worth attempting. If, however, there is plenty of reverse side on the ball, and it strikes anywhere on the shoulder of the pocket, it is sure to go in.

Another fault very commonly committed is, where there are two ways of playing a stroke, men take the way they fancy rather than the way which will pay them best. Nothing stands more in the way of improvement than this habit. Very likely games may be lost by trying for a little more, and spectators are often too severe on what they consider as want of proper caution. But let them say what they like. If a player is honestly anxious to improve, he can afford to let the particular game take care of itself, and even if he lose a dozen games running, patient practice will bring its reward in the end.

I do not wish to be misunderstood. I am not advocating 'playing to the gallery,' merely for the sake of bringing off a showy stroke, but playing out on purpose to try for position. There is, of course, a time for everything. In a match involving a stake, or when competing in a club handicap, a player should throw no chance away, and play carefully and cautiously, especially near the end of the game *with the lead*. But in an ordinary game he should play out and try whatever comes. Though many shillings may be thus lost, it is comforting to reflect that they are really the fees for learning, and they will ultimately prove to have been well spent. Nothing is more melancholy than to watch a couple of men who have devoted many hours daily for many years to their favourite game,

poking about with safety misses, white winners and double baulks, and spinning out a game of 100 to a weary length. In all those years they have not added one stroke to their battery, and they will go on to the end of the chapter, unimproved and unimproving, confirmed cushion-crawlers

Just as at whist, there is such a thing as playing to the score, so there is a time to be bold as well as a time to be cautious ; and many a match has been lost by over-caution. I once saw a game in a club tournament, where one of the players was immeasurably superior to the other, and, although he had given his opponent a long start, he had caught him 100 from home. He then took it into his head that his proper tactics were to play for safety on every occasion. The result was what might have been expected. His antagonist took a clearer view of the situation, saw that the game was desperate, and played out every time after the other's safety stroke. There were many occasions when the better player, if he had taken the least risk, would probably have run up a nice break, and possibly have finished the game ; but he waited and waited, and his antagonist got home. Clearly, with 100 to be made and playing on level terms, his proper course would have been to play his usual game, when his superior skill must have brought him in an easy winner. A player must remember that it is not enough to hamper the enemy's chances of scoring ; he has *got to make the points* himself

The four-handed game, which is a very popular institution with the cautious, is one of the very worst schools for a young player with any enterprise. He will be drilled into everlasting safety, and if he is at all ambitious of playing a good game, he should avoid it as he would the plague. On the other hand, he should never lose an opportunity of playing with better players ; for, although at first he will find the rapid scoring of his opponent very disconcerting, still, in time, the feeling will wear off, and the necessity for doing better will of itself induce improved play

The tactics of the over-cautious school lead one to consider the question of 'leaves' as generally understood. The hard-hitting, slap-dash player, after having sent all the balls flying in various directions, will often bitterly bewail his luck if nothing is left after what he considers a brilliant stroke; and amateurs are prone to look for this chance-leaving as a fairly earned reward of their skill. The less one looks for this sort of thing the better. A leave which has been carefully planned and successfully engineered is more meritorious than a dozen of such, and will, in the end, bring a more certain reward. No thing is more mortifying to the player who is honestly trying to place the balls than to find, as he often will at first, that time after time he has just failed, perhaps by a few inches, to attain the desired position; while a hard-hitting, careless friend is merrily scoring all round the table after strokes which have apparently hopelessly scattered the balls. Curiously enough, a large share of this particularly exasperating form of luck falls to the lot of the careless. I once saw a man make 62 without a fluke as popularly so-called, and yet every leave was the result of accident rather than of design. This is what one must be prepared for, and suffer gladly. Don't be cast down or disgusted if the adversary drives a ball anyhow to the baulk end and finds an easy losing hazard left. It is all the more annoying because one cannot call this sort of thing by its true name—viz. a fluke.

Another form of annoyance is the fluked safety, which will sometimes run almost through an afternoon. It is very hard to bear, especially when the adversary takes spurious credit for playing a wonderfully safe game. If under these trying circumstances the temper can be kept, things will not only right themselves eventually, but a reputation for good-nature and saintliness may be earned.

That these things worry is not wholly discouraging. Unless one is absolutely indifferent to the game they must be felt, and the keener one is the more must their injustice be resented. But, after all, they teach patience and coolness—two very

valuable allies—which have many a time pulled a game out of the fire, after it has seemed utterly and irretrievably lost.

Careful students of Chapter V. will have realised that perhaps the most important thing for the learner to devote his attention to is the winning hazard ; but that stroke, at once the most difficult and the most important at billiards, is sadly neglected by the vast bulk of amateurs. Seldom, or never, is a break of over 40 made which does not involve a winning hazard, which must be accomplished in order to continue the break. All strokes are largely a matter of confidence, and this is especially true of the winning hazard. Unless it is played with the confidence which practice alone can give, the stroke seldom succeeds. Here pool comes in as an excellent training school. It is wearisome drudgery practising these strokes simply, but in the friendly rivalry of pool, with the added zest of a prospective sixpence, the winning hazard becomes quite attractive.

In a long spot-barred break a spectator, if his attention has never been directed to this point before, will be astonished at the number of times the red is holed, and, of course, the immense possibilities of the 'all-in' game are obvious to everyone. It is the spot practice, and nothing else, which has given the leading players their complete mastery over winning hazards ; and though it is the fashion nowadays for even the most moderate players to declare 'the spot' tiresome to watch and not worth their attention, yet a little quiet spot practice will not be thrown away. Although the learner may not attain sufficient proficiency to justify him in going for the spot in an important game, still he will pick up almost unconsciously a notion of the right place to strike the object ball for a winning hazard, and, in addition, one or two little wrinkles as to 'touch' and 'strength' which will stand him in good stead in other parts of the table.

Another great point in winning-hazard practice is that it directs the learner's attention, forcibly and practically, to the dangers and disadvantages of misapplied side. In the first place, the hazard itself is rendered more difficult, and repeated

failures will compel a learner to take pains to strike his own ball in the centre. And, in the second place, the run of ball 1, after impact with ball 2, will be checked or accelerated, as the case may be, to an extent which may lead to disaster. Young pool players, when playing from baulk on a ball at the top of the table with their player in hand, frequently experience the mortification of seeing their ball, after an unsuccessful shot, come back into baulk a helpless prey to the next player. It may very well be that they have not put too much force into their stroke, but they have probably struck it off the centre. In this, one of the commonest of pool strokes, it is of the last importance to avoid putting on side.

It is worth remembering, too, that it is not necessary, as so many amateurs appear to think, to make all winning hazards at forcing strength. As a matter of fact, the pocket is considerably larger for a stroke played at drop strength, although of course it requires some nerve to play the hazard in that fashion.

Losing hazards have been so exhaustively dealt with in Chapter V. that nothing need be said here concerning them ; but there are two faults very commonly committed by amateurs which are fatal to accurate hazard striking, and the first of these is pointing the cue at one part of ball 1 and striking another. Some men habitually aim with the cue-tip pointing over the top of their ball, others again with the tip almost touching the cloth, no matter whether the stroke they intend to play be a follow or a screw, a centre stroke or a stroke with side. Those who are familiar with golf are well aware that in those places where grounding the club behind the ball is not allowed it is exceedingly difficult to hit the ball cleanly and truly, because there is nothing to guide the aim. Similarly, at billiards, if the cue be aimed exactly at the point on the ball that it is intended to strike, the stroke is more likely to be accurately delivered than if it be pointing at some other spot or be brought down or up, to the left or to the right, at the last moment. It is a rare occurrence to find a moderate player who aims as he should aim.

The second fault is the widespread belief among inexperienced players, that in order to impart the maximum amount of side to a ball the cue should move in a horizontal curve—that is to say, that believers in this strange theory (and they are legion), when they are attempting a stroke involving, say, right side, sweep the point of their cue to the right as they deliver the stroke. Students of Chapters III. to VI. will readily see that the theory is absolutely fallacious, and fully understand that, the straighter the cue is pointing along the path of ball 1 or parallel to it, the more power it has over the ball. But, as the theory is firmly maintained, it may be worth while to draw attention to it in order to emphasise the instructions contained in Chapter III.

In most billiard-rooms the balls receive somewhat severe treatment, and of necessity are constantly travelling to the makers to be adjusted or turned down. Therefore, it often happens that they are smaller and lighter than they should be. Now, such balls are more easily sent flying up and down the table, and they are not quite so liable to catch in the jaws of a pocket and stop outside as full-sized ones. Hence they are popular with free hitters, but in other ways they are very objectionable. Being light, they are more liable to turn aside over any slight obstruction on the table; and, as they start away after contact faster than heavy balls, it is a difficult matter to play quietly with them and keep the balls together. It may be that at first, with heavy full-sized balls, the breaks are neither so many nor so long; but perseverance will result in more command over the heavy balls than was possible with the light ones. The very fact that continual slogging with heavy balls is arduous work, and distinctly damaging to the top of the cue, will of itself induce a quieter style of play and more thought for the hereafter.

Simple as it may seem, very few men know how to practise. It is a common experience to walk into a billiard-room and find a player idly knocking the balls about—now a losing hazard, now a cannon, all too rarely a winning hazard—with no

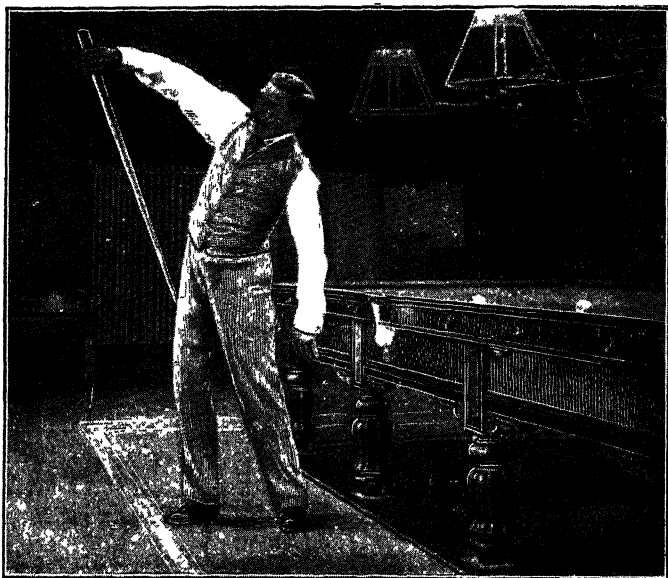
method, and with no attention to the run of the balls. Nothing is really more useless. To practise properly, one should have a distinct idea of what is wanted and how to set about getting it. Chapter VIII. clearly shows the great merit of the spot stroke as a means of practice. The combination of strength and accuracy is most important training. One or other position will probably prove more difficult than the rest. Practise that particular stroke till it is mastered—*i.e.* till not only is the hazard made, but position is obtained for the next stroke.

Many, of course, there must be who have not got the time or the patience for such practice as this, and to them I offer an alternative. Spot the red, put the white on the middle spot (the position after the balls have touched), play from the D, and see what the break will run to. At the outset the white long loser is an admirable practice stroke, for it must be played freely, and its successful manipulation will engender a feeling of confidence in long losers which will be worth a great deal. There are some players who find when they make this hazard that the object ball runs perilously near to the middle pocket; others find with their normal stroke that the ball usually strikes the side cushion about a foot or eighteen inches above the middle. Players of the former class generally gain position off two cushions, players of the latter class off three; but in each case the object is to leave a cannon up the table on to the red on the spot.

Long losers from baulk are most excellent practice, and would be more popular were it not for the nuisance of having to go and fetch the ball from the other end of the table every time. The new tramway arrangement, patented by Messrs. Orme & Co, whereby the ball returns automatically from the top pockets to the bottom of the table, does away with this drawback, and is therefore a distinct advantage where there is no marker.

There is an exercise, invented I believe by a weather-bound golfer, in which the red is spotted on the centre spot,

and the player starts from the D and tries to hole the red in all the pockets in turn in as few strokes as possible. The red is re-spotted on the centre spot every time it is holed, and the player plays on each occasion from where his ball has run to. This game is really excellent practice, for it involves accurate winning-hazard striking, combined with delicate strength and a knowledge of angles. I believe that 20 is considered what



Preparing to play behind the back *the wrong way*

golfers would call the 'bogey' score ; but I fancy it is placed a little too high, and I think 16 would be nearer the mark. As the learner improves he can lower the bogey to suit himself. To sum up, the whole art of successful amateur billiard-playing is almost all contained in the accurate delivery of the cue, division of the object ball being a comparatively simple matter.

Chapters III., IV., V., and the valuable memorandum con-

tributed by Mr. Pontifex, should be carefully studied. The learner will find that if the once masters cue delivery many other things will be added unto him. He will discover that it is just as easy to screw to any angle, when the balls are close together, by playing softly as by hitting hard, and will learn the valuable fact that screw and side are easier to apply softly, because with a gentle stroke he can make more certain of striking where he intends, and thus he will have found out the whole secret of screw. It is the spin on ball 1 which causes it to spring off square, and the force of impact has comparatively little to do with altering the angle of deviation.

And yet I fear that no printed instruction will teach everything in the way of making strokes, because the sense of touch enters so largely into the question of execution. A good player with a cue in his hand can show more in an hour than the best book will in a month ; but the former is not always attainable, whilst the latter may be the student's constant companion. Hence it will be seen how advantageous it is to play as much as possible with better players, and also to practise carefully the strokes recommended in a sound manual.

A. H. BOYD.

By all who are interested in the higher aspects of the game the following memoranda by Mr. R. H. R. Rimington-Wilson on breaks generally, and on top-of-the-table play specially, will be welcomed. He brings to the subject great experience, gathered from various sources, and for many of the hints which follow he has acknowledged his special obligations to Mr. John Roberts.

SOME NOTES ON 'THE TOP-OF-THE-TABLE' GAME

BY R. H. R. RIMINGTON-WILSON

No practice by oneself at billiards can be more fascinating than this modern development at the top of the board ; it has also this advantage, that in the absence of a marker it does not

often entail journeys to far distant pockets in search of a ball. Furthermore, it is an art which makes as many calls on the head as it does on the hand and eye. Many little problems have to be solved, and many a solution, sufficiently obvious when pointed out, fails to present itself after months of solitary work.

The following notes presuppose the student to be well beyond the novice stage, and well up in the 'out in the country' game. He must have thoroughly mastered moderately easy short winning hazards, with and without side, also slow screws off fine and full balls under the same conditions. Failure in the former is absolutely fatal, and execution in the latter essential to due control over the object ball.

It is hardly necessary to say that a good spot-stroke performer starts with a great advantage, many of the strokes being spot strokes pure and simple. Conversely, it follows that a good top-of-the-table player must of necessity be a fair spot-stroke performer. To anyone who is uncertain of his short winning hazards there is only one course open—to work at them till he can do them, or to leave the top-of-the-table game severely alone. Breaking down at this game is usually even more expensive than failure at the 'spot,' as in the latter case all three balls are not necessarily together at the top.

To a master of the art there is no question but that this method of scoring presents the easiest and quickest way of making a break. Given the requisite knowledge, the strokes are generally not very difficult, and there is the enormous advantage of being close to the work—in addition to which the player adopting this style of game is much less affected by the conditions of the table.

Nursery cannons are of course a great feature of play at the top of the table, and must be made a separate study. They are much easier than is generally supposed, and require really more knowledge than execution, save perhaps when *massé* has to be employed. The writer has several times seen fifty consecutive cannons made with no tip on the cue,

which is strong evidence in favour of not much execution being required

The chief difficulty lies (1) in getting position, (2) in turning the corners. Getting past the middle pocket is rarely attempted, and would generally defeat the best players. It is almost impossible to illustrate these 'nurseries' by means of diagrams, as often a difference of a hair's breadth in position will determine the way of playing the stroke. To anyone wishing to make a study of nursery cannon play Vignaux's '*Le Billard*' (Paris, Delarue), an admirable work on the French game, well illustrated with diagrams, is strongly recommended.

Now, unless the opponent has been kind, before one can play the top-of-the-table game it is obviously necessary to get there, consequently diagrams are given to show some of the readiest means of obtaining the desired position. These do not, of course, pretend in any way to exhaust the subject, but merely indicate the general idea. Each diagram is accompanied by some simple instructions for play.

It will be seen that the commonest mode of getting position is by the long cannon (Diagram II.), played either to collect the balls in the region of the spot, or—with a slight variation of position—to double the red towards the top pocket, driving the opponent's ball spotwards.

While mentioning this cannon it will not be out of place to call attention to a very important point, one of general application, but especially valuable in this type of stroke.

It is of the first importance that after cannoning, the *striker's* ball (ball 1) be left in a commanding position; in fact, in such a position that a score will almost certainly be left wherever the other two balls may come to rest at the top of the table.

In a general way this is effected by two opposite methods. We will first consider a case where the cannon ball (ball 3) lies well away from a cushion, and in an uncramped position, which it would be desirable for the striker's ball to occupy. In this case the cannon should be made dead full on ball 3. Ball 1

will be stopped comparatively dead, and will occupy the other's place, which is what is required.

It follows from this that in the event of ball 3 being close to a cushion or in some other undesirable place, the opposite method should be employed, and the full ball cannon avoided.

There are cases, of course, when it is desirable to cannon full on a ball touching or nearly touching a cushion, with a view of utilising the kiss, but this is not the class of stroke under discussion.

The main point it is hoped the previous remarks may convey is, the great importance of leaving the striker's ball in a commanding position. The player's attention is called to this as one of the chief points to be considered in this class of stroke

Reference will be made in the diagrams to this method of play.

In conclusion, one word of warning. On arrival at the top of the table do not straightway become a player with one idea—to stop there.

Remember that a little exercise 'in the country' is often required, and often more profitable than a risky attempt to prolong the stay 'at home.' The return home is by no means hopeless. Not only is there every chance of it if a man is in good form, but under any circumstances no undue hurry should be shown to get position either for the spot or for play at the top of the table. It is better to plod along quietly with long losers and ordinary strokes till a favourable conjunction of the balls presents itself than to risk failure by attempting to get immediate position by means of complicated strokes full of compensations. No doubt if they come off successfully the triumph is great, but the method is unsound, and will not bear the test of time; it will fail far oftener than the less ambitious mode, which waits a bit on fortune, instead of trying to force her favours. It is usually the comparative novice who is in

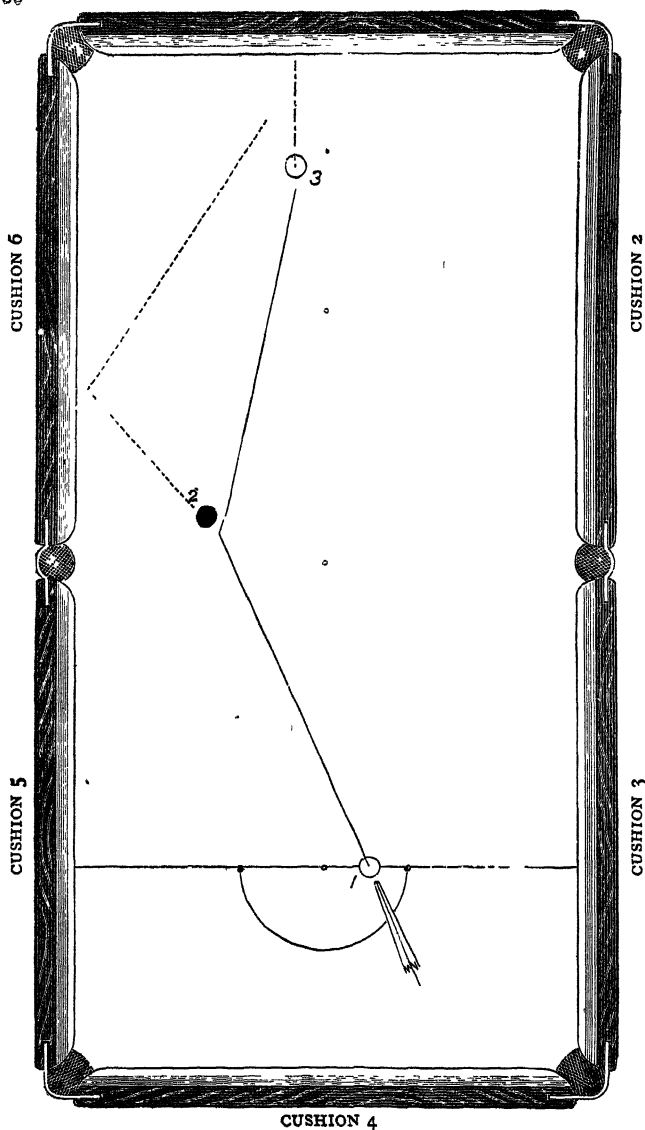
the greatest hurry—‘*Chi va piano va sano, e chi va sano va lontano.*’

Probably the most favourable open position for commencing the top-of-the-table game is when the red is on the spot, the striker's ball in position for an easy spot hazard, and the opponent's ball in close proximity to the red, above or below it, and more or less in the central line of the table. We may borrow a French expression and call this position the *position mère*. This position in the hands of an expert is most prolific, admitting as it does of a system of play consisting ideally of alternate winning hazards and cannons, but varied by ‘nurseries’ and incidental play. The great feature of the modern game is to obtain and regain this *position mère*.

The diagrams that follow are given with a view of illustrating some of the commonest methods of leading up to this position and suggesting others.

In supplementing previous remarks the student's attention is invited to the importance of being constantly on the look out for an opportunity of playing the opponent's ball spotwards when there is a probability of the succeeding stroke being a red winner. Even in the event of a red loser being left—instead of the winner as intended—the opponent's ball can hardly occupy a more favourable position, as the balls probably can be gathered at the top of the table in the course of a stroke or two.

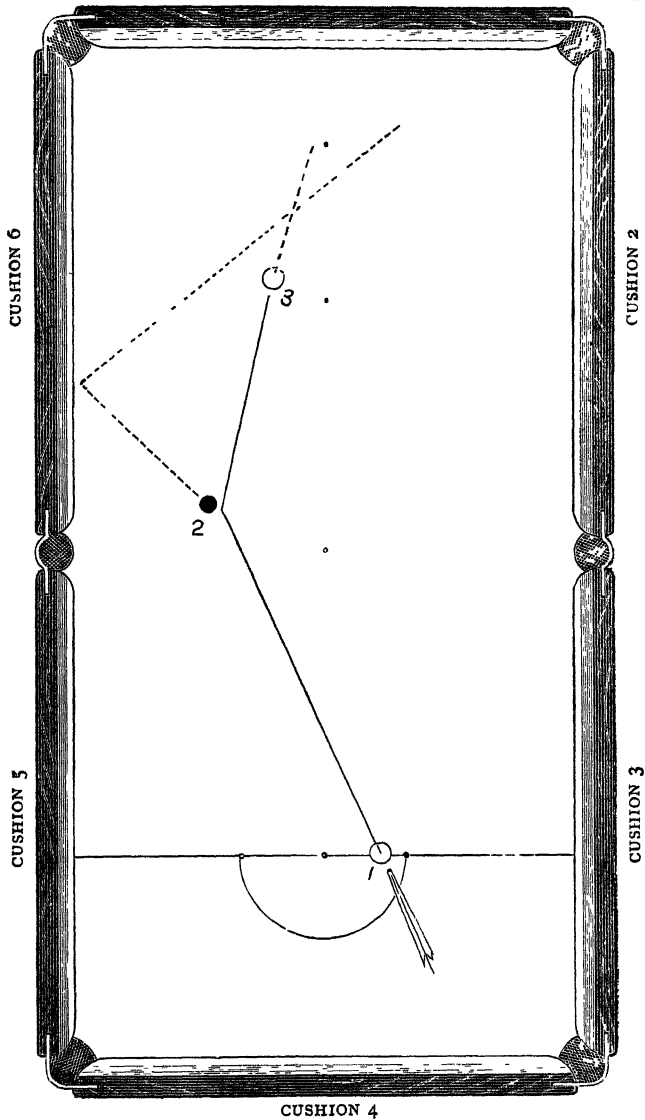
It will be noticed that in the examples given the play recommended is of the simplest and most natural description, calling for a little forethought, but for little or no execution. They also in nearly every case represent the simplest way of leaving a break even to a player who is not a proficient at the top of the table.



CUSHION 4

Diagram II.

Remember to be full on ball 3 with the view of stopping your own ball
 Compare also Diagram p. 185 With slight modification the red
 may be left near right top pocket.



CUSHION 4

Diagram III

Play half-ball on the red, driving it towards the right-hand top pocket. Full on ball 3 to stop your own ball and drive it spotwards. With ball 2, the white ball, be careful not to play too hard for fear of losing it.

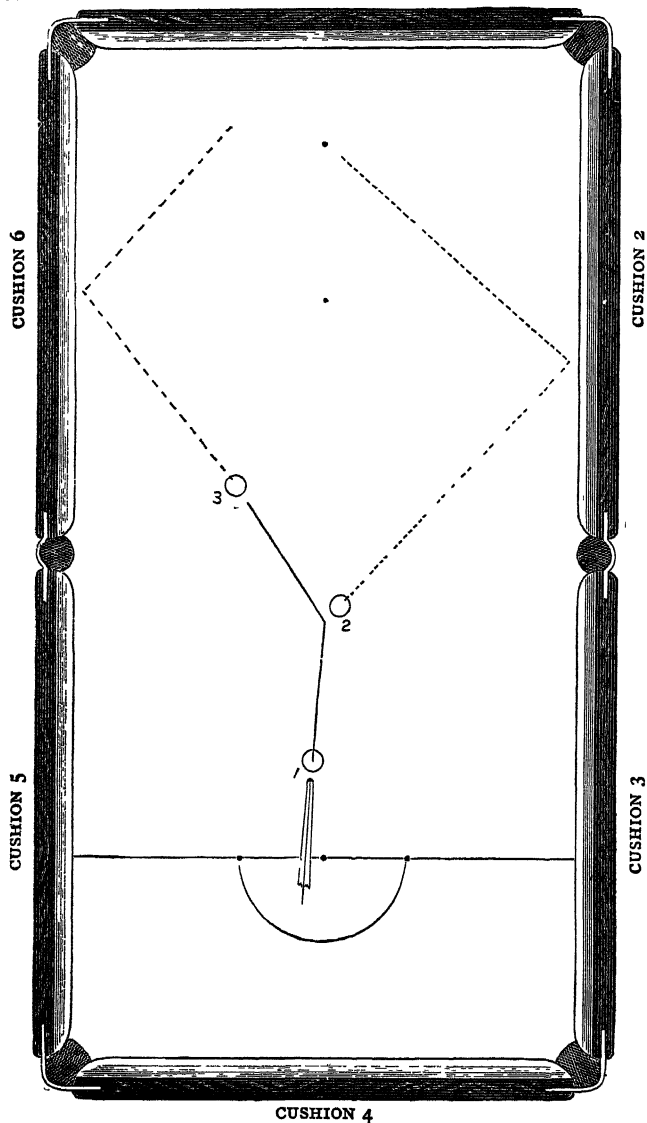
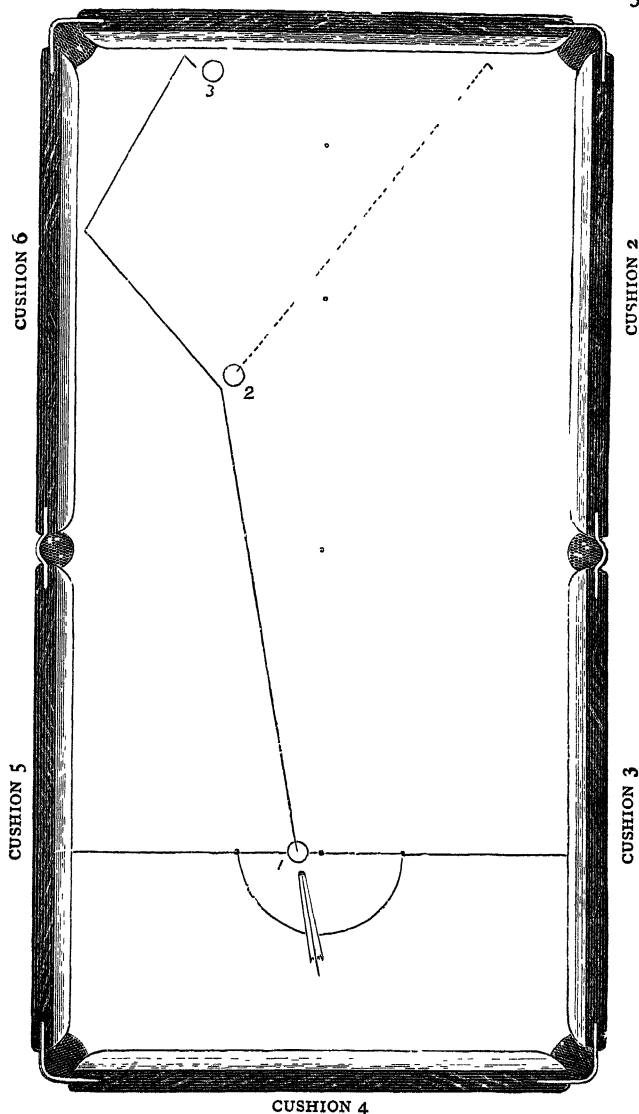


Diagram IV.

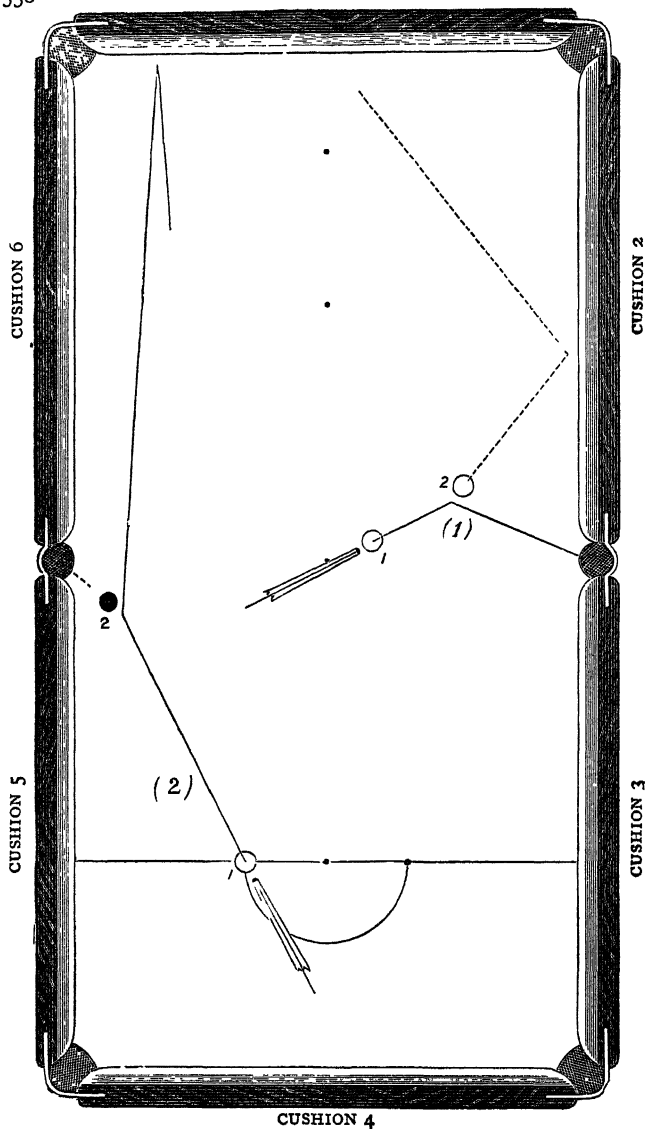
Half-ball on ball 2, sending it spotwards, nearly full on ball 3, which will stop your own ball and leave it near the pyramid spot.



CUSHION 4

Diagram V.

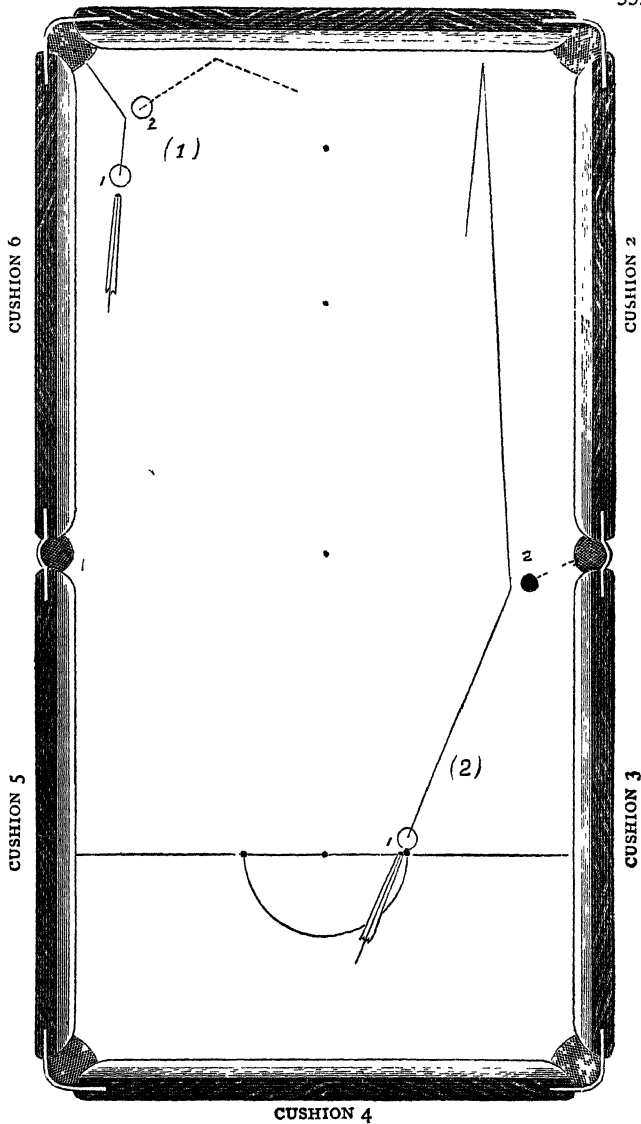
Be careful to be fine enough on ball 2 to keep it at the top of the table, a half-ball would bring it down the table out of play



CUSHION 4

Diagram VI.

(I) Make the loser off the white, driving it spotwards (II) Hole the red, and get position either by the slow drop or off the top cushion, preferably the latter



CUSHION 4

Diagram VII.

- (I.) Make the loser off the white, leaving it near the spot
 (II.) As in previous diagram

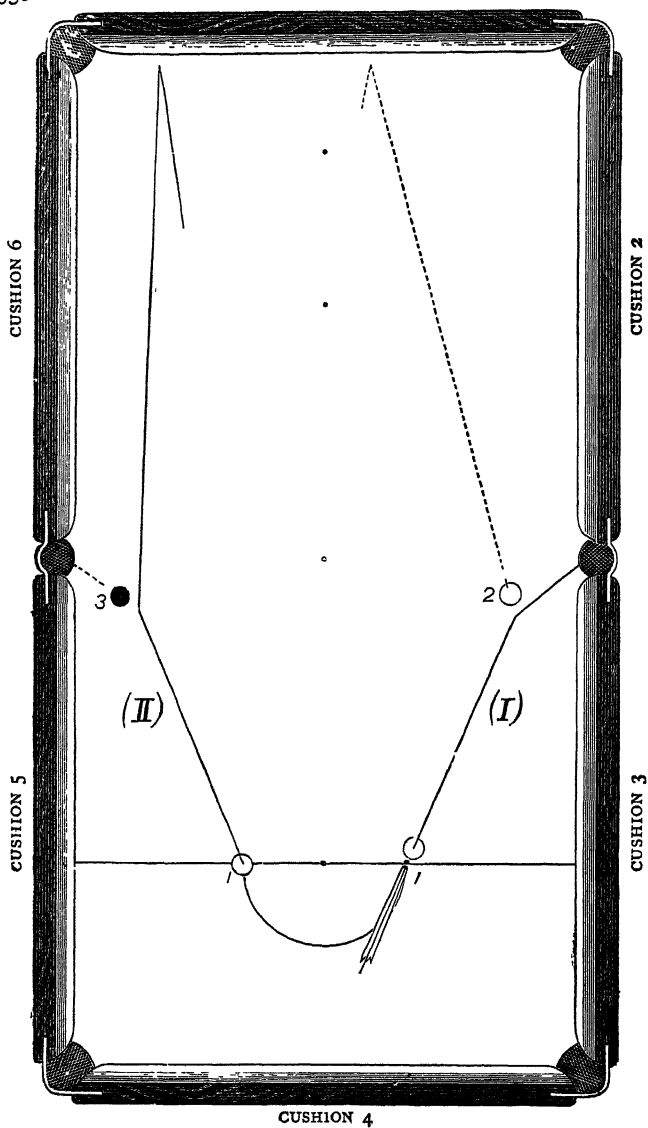
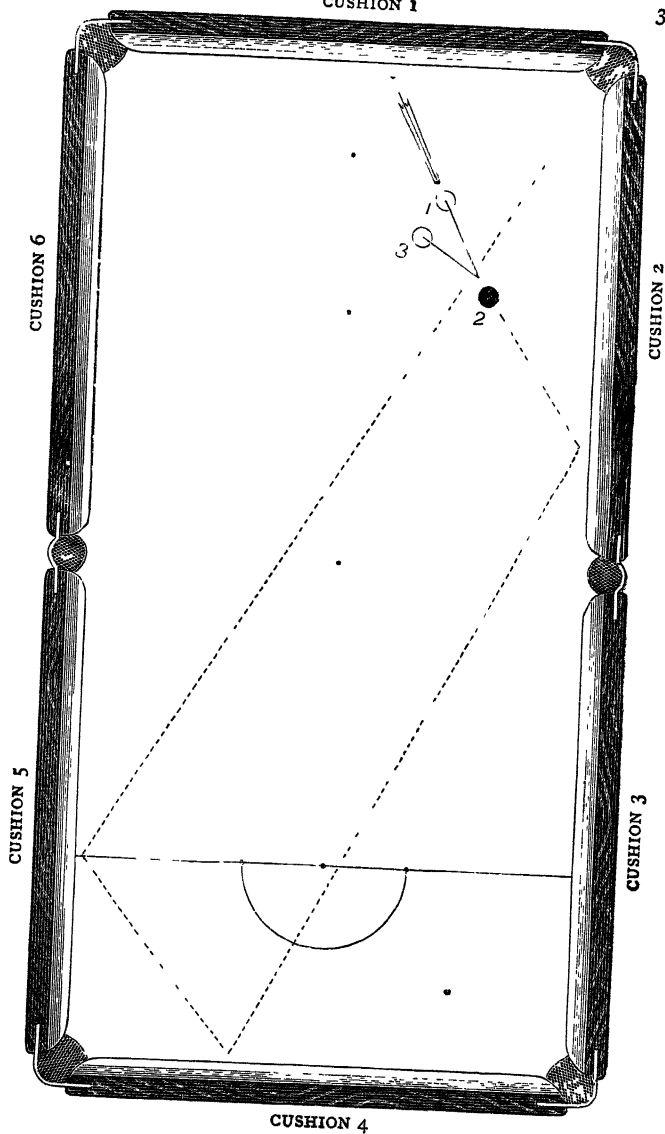


Diagram VIII.

(I.) Make the white loser gently (II.) Hole the red as before.



CUSHION 4

Diagram IX

Screw back on to the white, bringing the red round. With the white as object ball, care must be taken in this class of stroke not to hole it in the top pocket

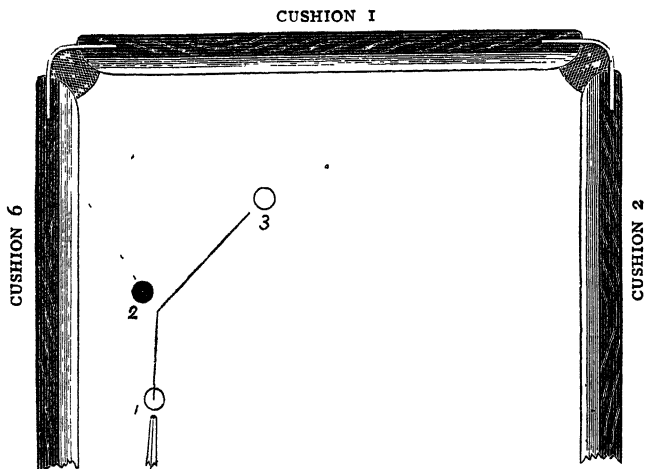


Fig 4.—Play to cannon full and slowly on ball 3, leaving the red winner and white near the spot. With balls 1 and 2 further apart, the strength would be too difficult to play as here given, and the play would be as in Diagram No 1

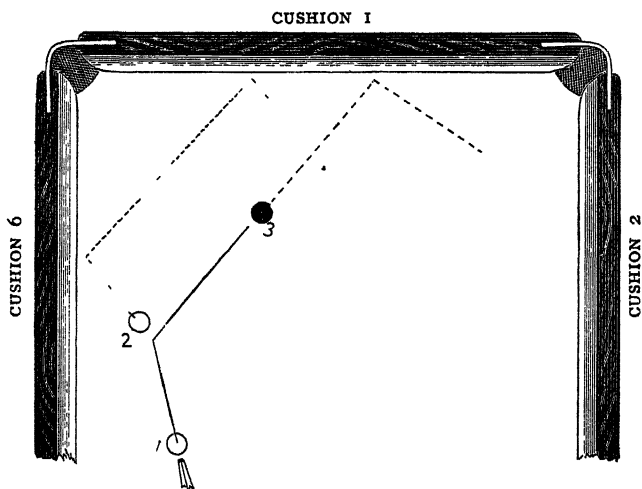


Fig 5.—Play the white spotwards and be full on the red

The diagrams and remarks just given having led us up to the top of the table, those that follow will attempt to illustrate on broad lines some of the play when there. Niceties cannot be touched upon, and it is thought more convenient to give individual strokes of common occurrence rather than the consecutive strokes of a break.

In some cases the stroke given might be played differently, in order to collect the balls for nursery cannons ; but as the diagrams are intended to illustrate the more open game, the position for nurseries will not as a rule be taken into account. In other instances the stroke given admits of different treatment

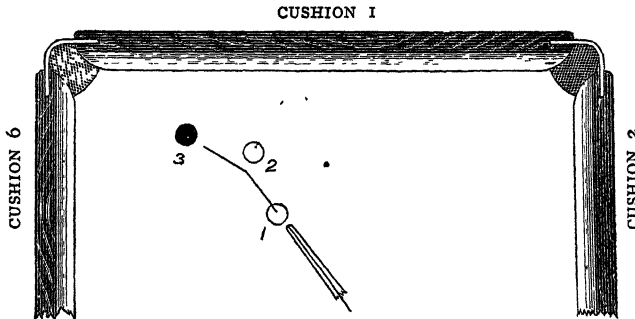


Fig. 6 — Play ball 2 behind the spot, cannon full on ball 3 (the red), leaving the winner, which when made with a stab leaves the *position mère*. Guard against losing the red first stroke, in which case the break would very likely be lost.

from that shown, the choice being frequently determined by the player's preference for a particular class of stroke. The chief aim of the diagrams is to suggest ideas.

A common fault in playing at the top of the table consists in endeavouring to bring the balls together, when the better game would be to leave them farther apart. In playing to bring them together a dead cover often results, very possibly bringing a promising break to a close. Of course in many instances to bring them together would be the game, but frequently it is not, and the reader should be on his guard against the above-mentioned cause of breakdown.

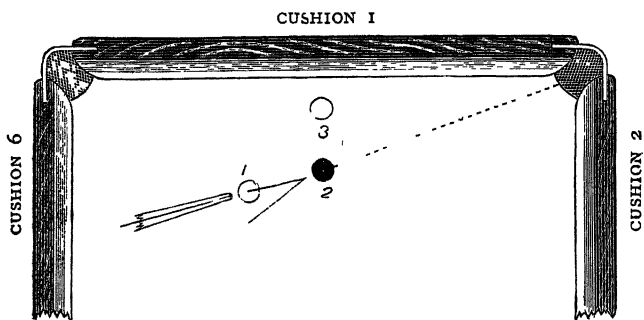


Fig 7 —Hole ball 2 (the red), and get position for a cannon either by the screw back or stab follow

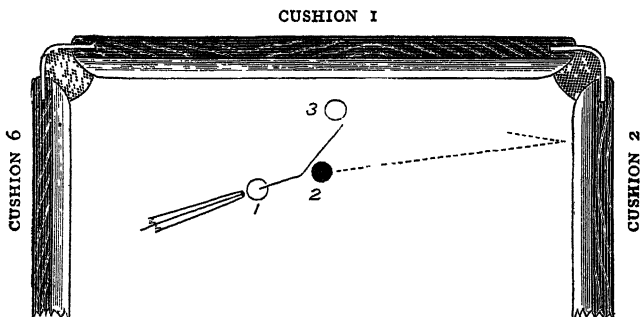


Fig 8 —Play a three-quarter ball on ball 2 (the red), dropping gently on ball 3, in such a way as not to interfere with the red winner to follow

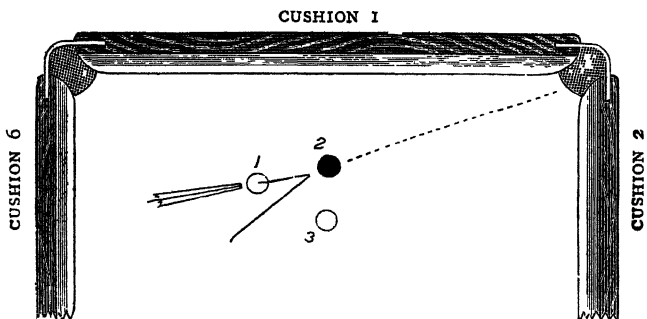


Fig. 9.—Remember to make use of the screw back in these positions.

CUSHION I

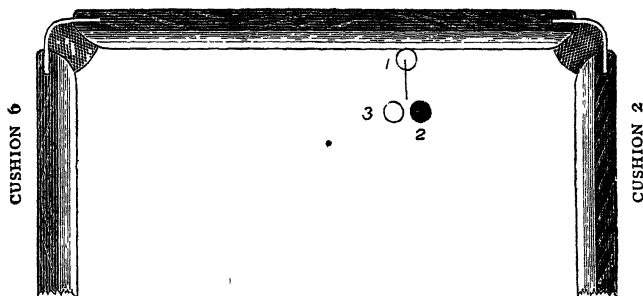


Fig 10.—Drop very gently between the balls, when making the second cannon, pass between and get below them

CUSHION I

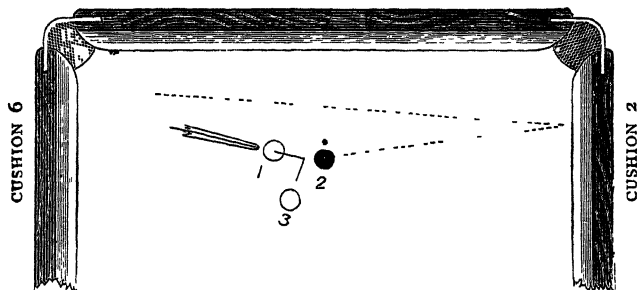


Fig 11.—Practise these strengths till you are sure of them.

CUSHION I

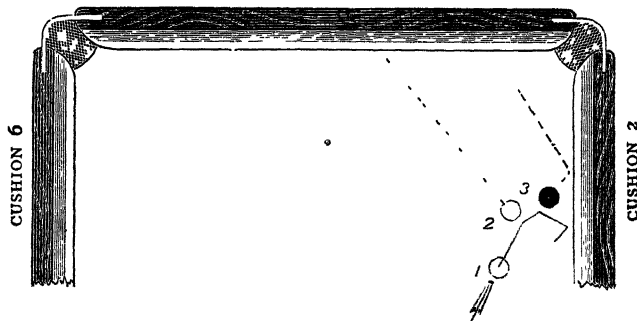


Fig. 12.—White spotwards and leave red winner.

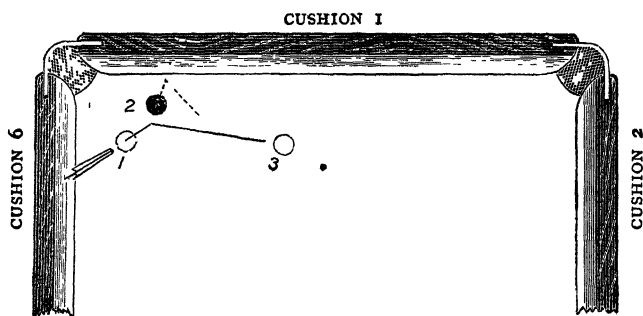


Fig 13.—Play here to cannon, and leave the red winner, barely disturbing the white

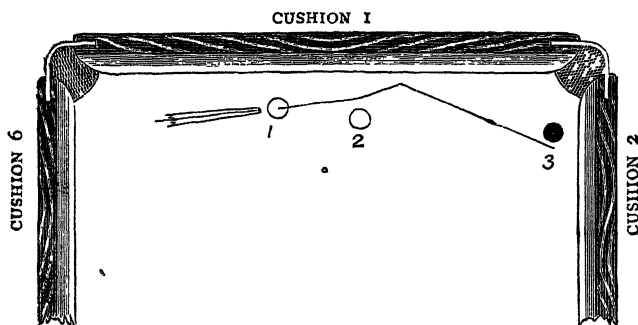


Fig 14.—Play very fine on the white so as not to disturb it through in this very useful class of stroke Avoid the run

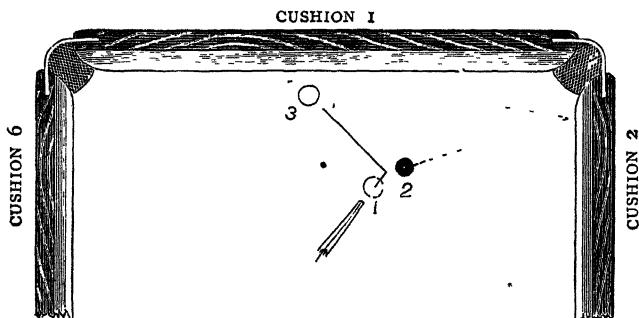


Fig. 15.—Gently here to leave red winner. Forefinger bridge Better than trying to bring them together This is a stroke which requires some delicacy of execution ; it should be practised till the red can be left near the corner pocket with certainty.

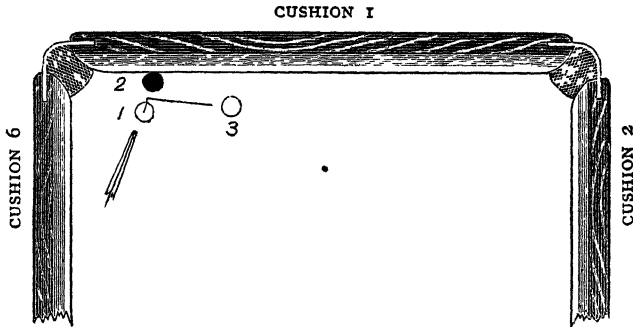


Fig. 16.—Kiss cannon off a fine ball, leaving red winner and ball 3 near the spot

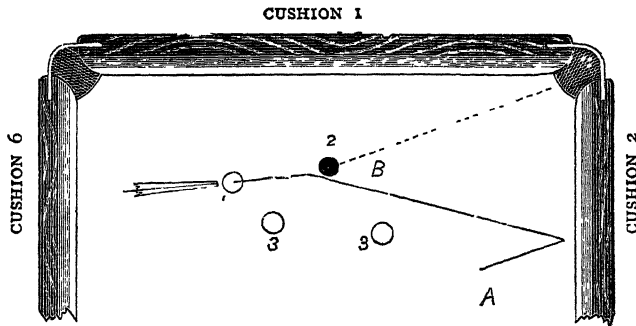


Fig. 17.—Study the position with the opponent's ball on either side of the central line of the table. In the one case when it lies on the player's side, hole the red by the slow drop, stopping about B. In the other case play freely off the cushion to A.

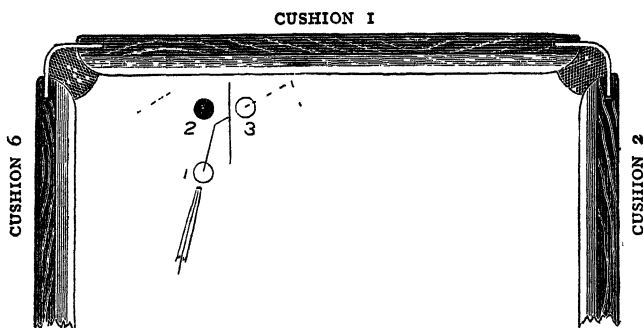


Fig 18 —Play rather fine on both balls, and come back a little way down the table. In playing this class of stroke, the object being to send ball 3 to the spot and leave red winner, it is often useful to employ side, which taking effect from the cushion after the cannon is made, enables the player to keep near the object ball or away from it, as desired. The stroke can hardly go wrong.

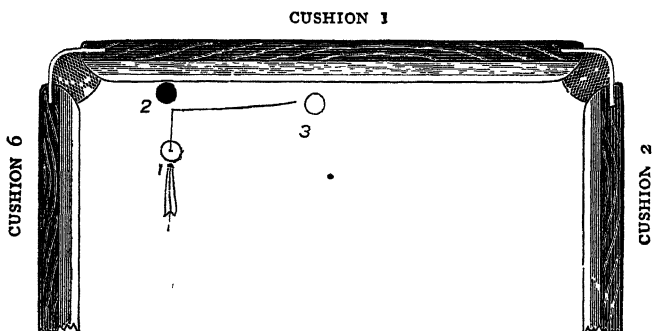


Fig 19.—Red touching cushion 1. Play slow, kiss cannon, leaving red winner. Not too full on the red.

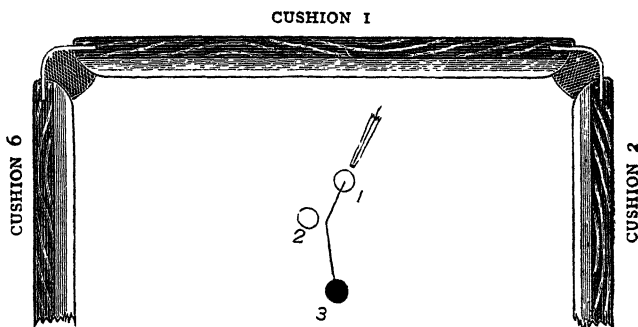


Fig. 20 —In this sort of position, the game is to cannon and drop slowly and full on the red. A screw-back cannon the next stroke played with good strength will probably permit of the top of the table game being continued. The strength for the return of the object ball, whether off one or more cushions, must be constantly practised. It varies considerably on different tables, and possibly with the weight of the balls.

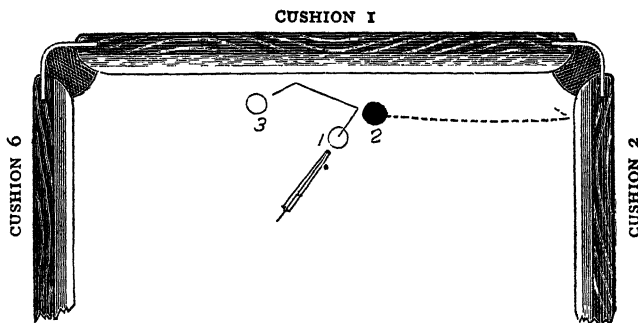


Fig. 21 —There is no better practice for touch than these slow screws off a fine ball, played off too thick a ball or too hard the break is lost at once. The object, of course, is to play the red over the top pocket for the winner and cannon slowly on the white.

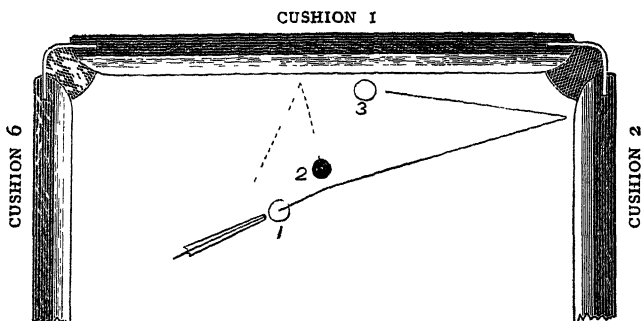


Fig 22.—Beware in playing this cannon of leaving the red close to the cushion, as a cover often occurs. Keep the red several inches from the cushion, either by finer cut or bringing it back from cushion.

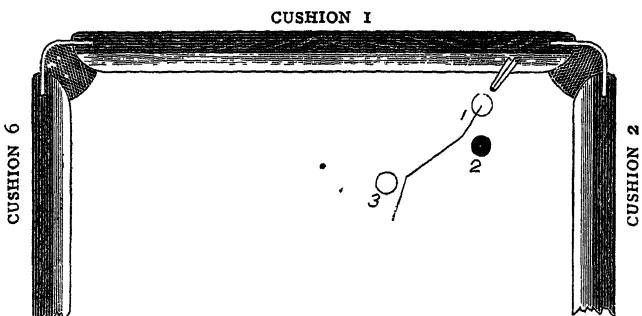


Fig 23.—Fine on ball 2 (the red) to leave winner. Cannon gently on inside of ball 3, leaving it near the spot.

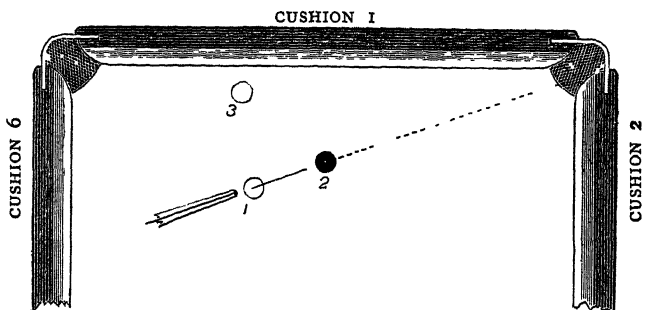


Fig. 24.—Stab the red in and stop close to it, taking care, of course, not to stop on the spot. This leaves the stroke shown in fig. 15.

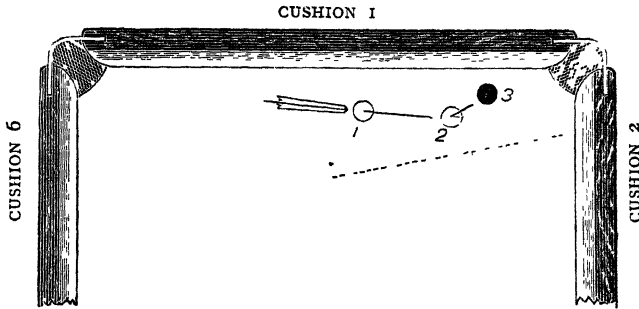


Fig 25 —Play ball 2 back to the spot, leaving red winner

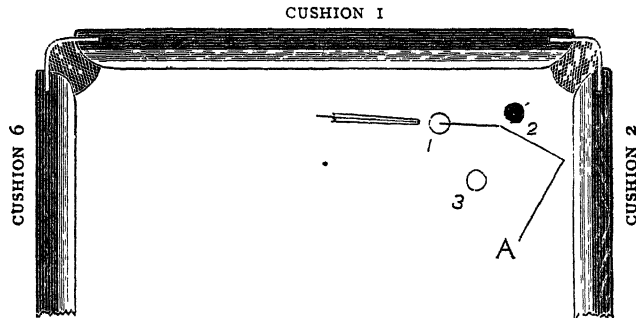


Fig 26 —Hole the red and play to leave your own ball below ball 3 about A, leaving choice of cannon or hazard

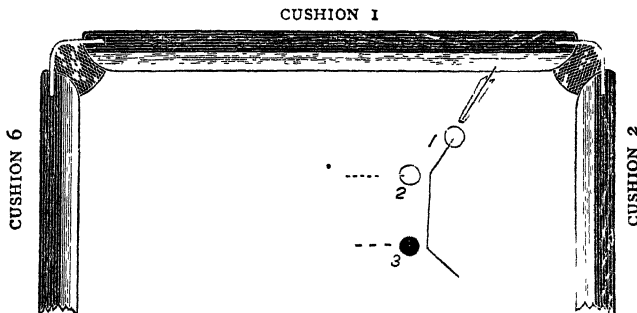


Fig 27.—Cannon fine on both balls and get below them

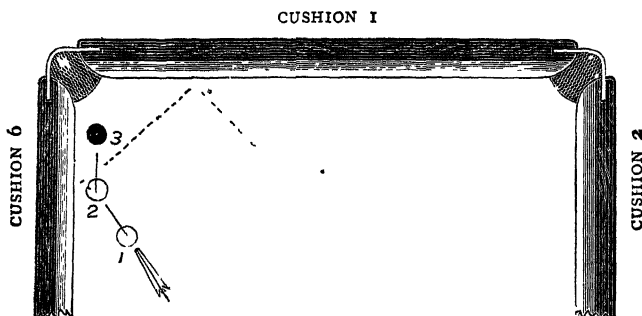


Fig 28 —White spotwards and leave the winner

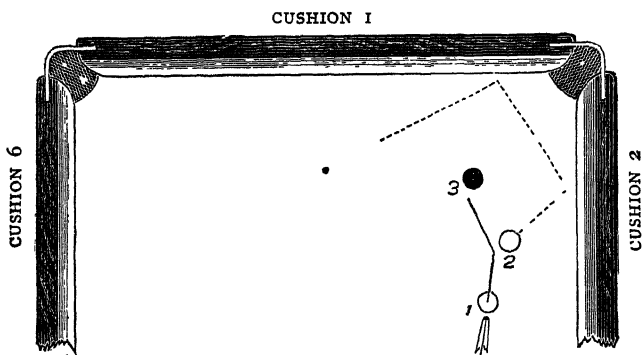
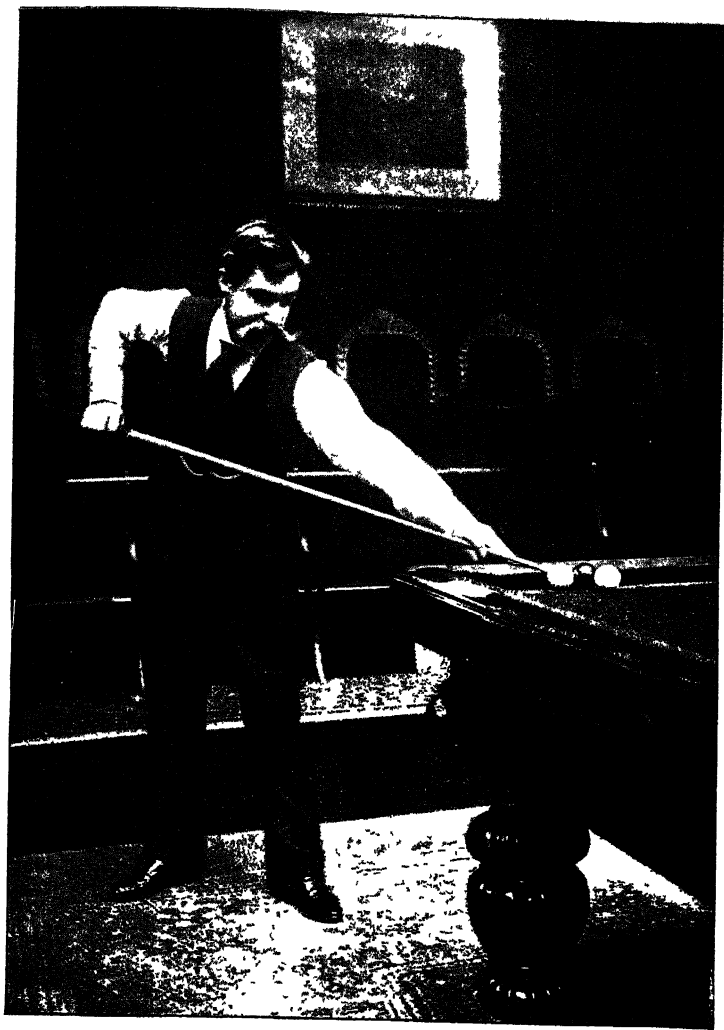


Fig. 29.—Play the white spotwards and leave the winner.

Much advantage will result to the thoughtful reader from a careful study of the foregoing remarks on breaks, specially if they are read beside a table on which the strokes may be played ; but the same can scarcely be said with regard to any instructions we have seen for playing a break of nursery cannons. Of all strokes on the billiard table they lend themselves least to description, and the distances between the balls being so small and the paths travelled so very short, that illustration by diagram is at once difficult and of doubtful use. Even if the writer or draftsman thoroughly understands each stroke, it is nearly



A Nursery.

impossible to convey his knowledge to the reader. As Mr. Rimington-Wilson has remarked, the student cannot do better than consult M. Vignaux's manual as far as book study is concerned, for the principle underlying the break is the same on French and on English tables. There are, however, practical differences, such as the pockets on an English table, which interfere with the continuation of a long series, and the size of the balls and table, all of which make the break more difficult for us than for the French. Hence it is necessary to endeavour to give some idea of this style of play on our tables, the more so as nurseries form a large part of most long spot-barred breaks.

The only nurseries of cannons that have as yet played an important part in the English game are those made in such a way that the three balls are kept travelling in front of the player, and seldom further than from four to eight inches from the cushion. The series was invented in America under the name of Rail play, and brought to France by Vignaux, where though quite modern it is already barred in match games. Theoretically it consists of the repetition of one simple stroke, whereby the balls are moved slightly forward, the only check to uniformity being when a corner has to be turned or a pocket passed, practically, this normal stroke, *position mère*, as the French call it, is seldom preserved for any length of break, and the art of continuing to score consists greatly in the skill whereby it is recovered.

A notion of the ideal path of the balls may be gathered from fig. 30, that of ball 2 being a zigzag parallel to the cushion, and that of ball 3 a straight line also parallel; 1' 1'' 1''' 2' 2'' 2''' 3' 3'' 3''' are the positions of the balls after each stroke. In fact the relative position of the three balls remains the same, whilst they are all moved short distances along the cushion at each stroke. Of course to attain this result absolute perfection of manipulation and of implements is necessary, and equally of course, no such con-

ditions exist ; after a few strokes the relative position is altered, even if certain requirements of the series be preserved. These mainly are, that a line passing through the centres of 2 and 3 must be inclined, not parallel to the cushion ; that ball 3 (of fig 30) shall never be nearer the cushion than a diameter ($2\frac{1}{6}$ in.), so that there may be room for ball 2 to be played between it and the cushion, but ball 2 must never pass ball 3, that ball 1 also should never pass ball 3, and that each should follow its rail. These are the chief considerations to be kept

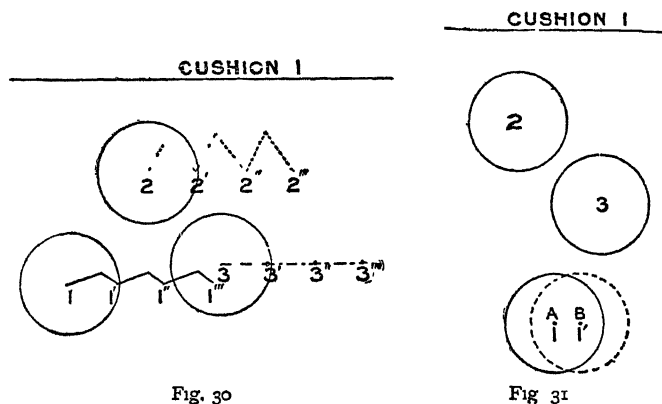


Fig. 30

Fig. 31

in mind when playing the series, the next point of importance being how to continue the break when the relative positions of the balls to each other is modified by various imperfections of play.

A few of the commonest variations will be mentioned, the object of the strokes being to recover the *position mère* as soon as possible

If ball 1 be played with a little right side or screw or too full on ball 2, or a combination of these errors, it will strike ball 3 too fine and come to rest below it, as shown in fig. 31. Ball 3, by having been struck too fine, has not travelled sufficiently, whereas ball 2 may have gone too far, so that the tendency of the error here represented is that the three balls

should be left in line, and the series be lost; being only recoverable by a perfect *massé*—a stroke so rare in the English game that it may be neglected

In the case supposed it is clear that following the usual nomenclature ball 3 would become ball 2 for the stroke about to be played, but would again become ball 3 in the next stroke after, and confusion might result, hence, for these nursery cannons, the cushion is assumed to be cushion 1, or that at the top of the table, and the balls retain their numbers 1, 2, 3, as in the *position mère*, fig. 30. The player is standing at cushion 6, looking towards cushion 2. First let ball 1 have its centre at A. Play a very fine ball on 3, scarcely moving it and cannoning tolerably full on 2, coming off it to the left. A gentle stroke will leave something like the original position. If ball 1 has its centre at B, and occupies the position of the dotted circle 1', the break is continued by a gentle *massé* very fine on 3, and as full as practicable on 2. One of the chief difficulties of this and other similar strokes when ball 1 is decidedly below the other balls is the correct alignment of the cue. Different persons meet the difficulty in different ways, the majority, who are tall enough and not too stiff, bend over reversing the cue so that its tip points towards instead of away from themselves, the elbow being raised, whereas others lay the cue on the table in the right alignment, then standing as before at cushion 1, raise the tip, having taken hold of the cue about 6 or 8 in. further back between the thumb and forefinger, and leaving the butt on the table, bring the tip forward for the stroke. Occasionally a short, stout man is put to considerable inconvenience and disadvantage in playing these shots, and has after each cannon to walk round and play the next with the rest; at first sight the hardship may not be apparent, but if the value of keeping the eyes close to the balls in such delicate work, and the additional labour in walking round a corner of the table, and taking up the rest, say twenty times in a series of forty cannons, be considered, the serious nature of the drawback will not be denied.

The next position (fig. 32) is just the reverse of the preceding. Play a fine delicate stroke on 2, cannoning gently on 3 also rather fine, and getting a position similar to that shown

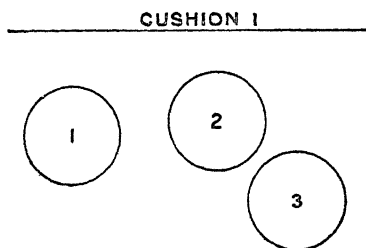


Fig. 32

in the previous figure. If ball 1 is nearer the cushion and nearer ball 2, the stroke must be played by the *massé*, care being taken to be fine on 2 so as not to remove it further down the table than need be, and to get below 3, that is further from the cushion, for the next stroke.

The stroke left being that of fig. 31, suppose it to be played too fine on ball 3, getting so full on ball 2, that it is left behind as in fig. 33. The stroke as shown is a screw a little further back, or less, than a right angle ; but if played plain, ball 2

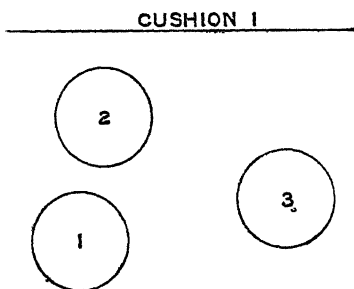


Fig. 33

will return from the cushion at right angles, or perhaps to the left of the perpendicular, and there is much probability of ball 1 remaining between the other two and the break being lost. Whereas if ball 1 be played with left side, ball 2 will come off the cushion to the right and rejoin 3. If by error ball 1

be played with right side, ball 2 will return from the cushion straighter or more to the left. This use of side is very pretty, and its effect seems to point to the transmission of rotation to the second ball, reversed of course, as it should be, according to the theory put forward in Chapter VI.

Again, if instead of being left behind, ball 2 is rather too far forward, by playing ball 1 with right side and gentle screw ball 2 will be kept back and the relative position recovered. In playing this, however, a slight error may result in leaving the

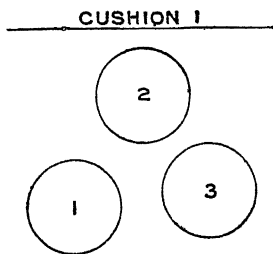


Fig 34

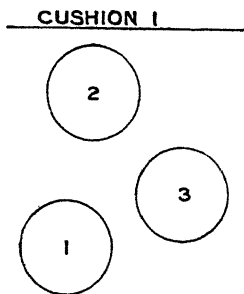


Fig 35

balls as shown (fig. 35), from which position the break should be continued by a kiss; ball 1 played just right of the centre of ball 2 should be kissed back on ball 3 fine

These kiss strokes should be practised till they can be done with great exactness. Usually the player being afraid of missing the cannon causes ball 1 to strike ball 3 too full, and thus drives it down the table, very likely so as to lose the break. Another type of stroke which easily results from nursery play is that wherein ball 2 has got too far forward and is left very close to ball 3. If ball 1 is favourably placed, a series of fine

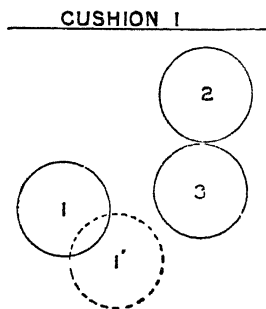


Fig 36

cannons may be played irrespective of the cushion, the secret being not to be too fine on the third or cannon ball, and so to avoid the danger of leaving all three balls in a straight line. In trying to continue cushion nurseries from a position such as is

shown (fig 36), the point to bear in mind is that ball 3 is too far back, relatively therefore, it must be struck as full as possible without sending it cushionwards, cannoning gently on ball 2. If 1 should occupy the position 1', a *massé* fine on ball 1 and full on ball 3 will be necessary, and by means of a few careful strokes the *position mère* may be recovered.

In playing cushion nurseries even after sufficient confidence is attained, and series of twenty or thirty cannons are not infrequently made, great trouble is found in continuing the break

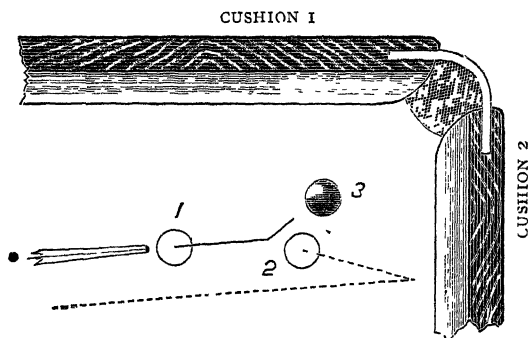


Fig 37

round a corner of the table. That the difficulty is real is apparent from watching professional play under the circumstances, very often it will be seen that when the balls have been worked into a corner, the player will seize the first opportunity of so striking his adversary's ball as to leave it near the spot, and cannoning on the red with the view of holing it next stroke. In other words, the nursery is abandoned and a favourable position for the top-of-the-table play is selected. This, we venture to think—for to write dogmatically on such a matter is foolish—is generally sound play, it makes use of the pocket, which is a serious obstacle to continuing cannons. Neverthe-

less, by careful watching and sometimes by slight modification of play, the opportunity of turning the corner may be recognised or created. Two examples are shown in the following figures of positions, in which it is worth while to try to continue cannons, the balls should not be allowed to get too near the pocket before trying the strokes, otherwise success is endangered by the shoulders. The sketch, which has been made without the advantage of a table on which the balls might be set up, is therefore, no doubt, faulty, but may serve to convey the desired

idea. The position shown is a modification of the normal one, and the player's object is to cause ball 2 to strike cushions 1 and 2 clear of the shoulders of the pocket, with such strength as to leave that ball near cushion 2. Further, he must so cannon on ball 3 as to drive it towards the path of ball 2, if possible slightly ahead of it, when either the *position mère*, or

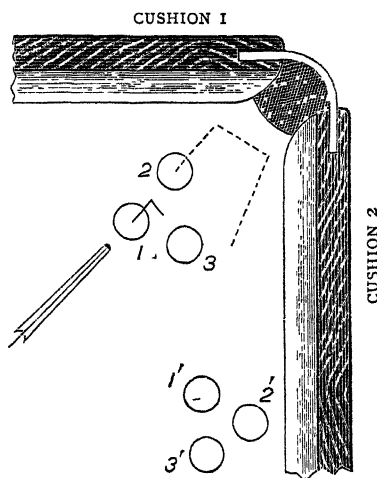


Fig 38

one not differing very widely from it, will be left, and the series may be continued along cushion 2 towards the middle pocket. Play ball 1 a screw stroke about three-quarters right on ball 2, whence it will return on ball 3, moving it slightly towards cushion 2 and away from cushion 1. The relative positions of the balls to each other after a well-played stroke is roughly indicated at 1' 2' 3', their actual position on the board cannot be shown, as it would confuse the original drawing.

Fig. 39 shows another type of stroke for turning the corner

In this case ball 1 must be played with a little right side, the measure of which is the quantity of ball 2 taken so as to make

it travel as desired. If fuller, more right side is required, if finer, less

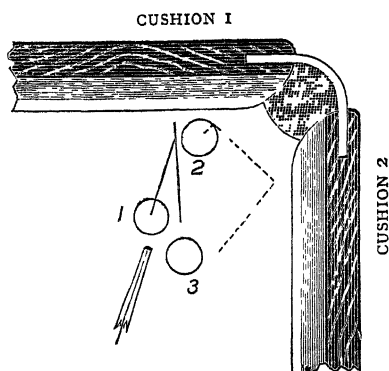


Fig 39

A person practising these strokes will be able to interpolate many variations between the screw and the follow as here exemplified, and perhaps the best way to make good use of these types is to set up the balls in normal position for

cushion nurseries within a few inches of the corner pocket, and then try in one or two strokes to leave a variety of one or other of the examples. In this way the eye becomes accustomed when playing a series to gauge the distance from the pocket and to seize a favourable opportunity for passing it

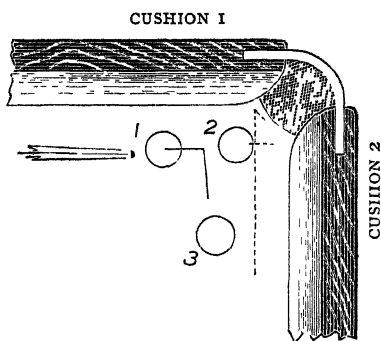


Fig 40

Another way of turning the corner is shown in fig 40, whereby as will be seen use is made of the jaws of the pocket to bring ball 2 down the table into the desired position. The stroke is so simple as

not to need detailed description, it may be set up by sight, and a few attempts will reveal what compensations should be

applied to insure to ball 2 the required speed and to slow ball 1, so that it may be left above the other balls. This diagram was sent by Mr. W. J. Peall, who, moreover, has kindly read these remarks on 'cushion nurseries,' and expressed his approval of them

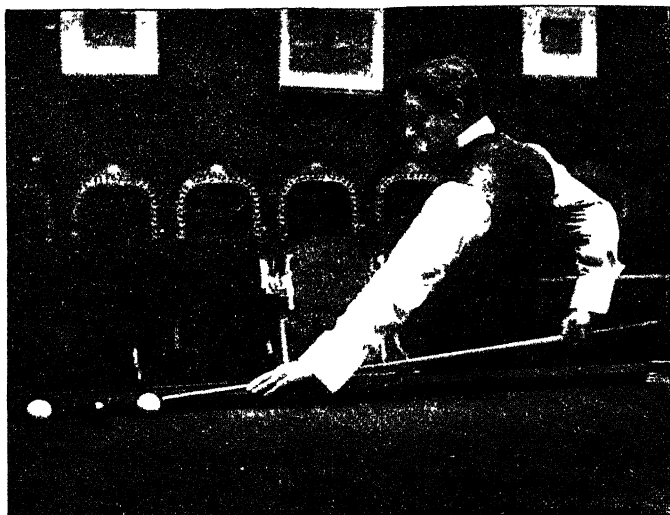
It is right that advice on the subject of cannon play should be given with caution and hesitation, for the science is far from understood even by our best players, and further knowledge may put our present ideas into the background, if not show some of them to have been founded on misapprehension. Hence but little more will be added on this subject, and that must be general. As a rule, play freely rather than over gently, and if possible under the close supervision of a first-rate performer, and one who can and will detect every small imperfection. Replace the balls after failure, and repeat the stroke till certainty is acquired, an hour's practice daily is about what is required to keep up the necessary touch after the various positions have been mastered, but recollect that too much practice at close cannons is apt to cramp and destroy the freedom needed for general play.

These notes on nurseries may be appropriately closed by the following remarks kindly furnished by Mr. Rimington-Wilson, who, it is permissible to observe, can play such cannons with a speed and certainty as greatly to be envied as they are difficult of attainment, and in a style professional rather than amateur.

'Nursery cannon play in England is still in its infancy, and the writer cannot help expressing a wish that it may never see full maturity. The possibilities of this style of game were well illustrated by the visit of the American champion Ives to this country, when he played a match with Roberts under unusual conditions.

'It is true that Ives made his gigantic break in a way that would be impossible with the ordinary sized balls and pockets—viz by jamming the balls, which were an intermediate size between the American and English, in the angle of a table with

very tight pockets. While maintaining the position in which he made his break, the balls were not jammed in the jaws of the pocket as they may be in the English game, but rather in the angle of the corner where, owing to the large balls and small pockets, there was very little danger of losing a ball. In fact, the break was played very much as it would be on an American table with no pockets.



Playing behind the back

‘Independently of this break Ives’s cannon play was very superior to anything of the kind in this country, and the writer has seen him in practice make a break between 600 and 700 without ever getting the balls angled, and this with the push stroke barred. Of course the *massé* stroke came into play, but not very frequently.

‘From the spectator’s point of view long series of nursery cannons soon become wearisome, perhaps even more so than the spot stroke. In many instances also a large proportion of

those present are unable to see the play at all, as the body of the striker blocks their view. So wearisome and monotonous did the breaks become in the French and American game that it was found necessary to legislate against them, and in first-class play a line is now usually drawn fourteen inches from the cushions and parallel with them, inside which cannons, except under certain restrictions, are barred. It is not improbable that in the future some sort of restriction will have to be imposed in our game. Gate-money, however, with professionals settles these questions very satisfactorily; amateurs may be allowed to do as they please.'

CHAPTER XI

THE CHAMPIONSHIP AND THE THREE-INCH POCKET TABLE

HITHERTO what has been stated about the game of billiards in this volume, whether generally or in the description of strokes recommended for practice, has been on the supposition that the table was of the ordinary make, the pockets being either those known as the standard of the Billiard Association, or of those patterns used by the best makers, both sorts being $3\frac{5}{8}$ in. wide at the fall. As the game is played at the end of the nineteenth century this size of pocket is sufficiently difficult for amateurs as a class ; and spectators of public play, by whose patronage professional players are mainly supported, have so greatly preferred the freer game and longer breaks possible with it, that the three-inch pocket or championship table may almost be said to have become obsolete. It is possible, however, that this disappearance is merely temporary, due to a combination of circumstances which may not continue for long, and may be longer still in recurring. Further, if it was absolutely necessary when the conditions were drawn up to have the championship of the game decided on a table different from that on which it is usually played—an anomaly greatly to be regretted—then the simple tightening of pockets was a device open to as little objection as any other. It is certainly preferable to barring this stroke or that on an ordinary table, an arrangement in which there may always be the suspicion that limitation is made in favour of a certain player or of a certain class of players, which is of itself sufficient con-



A DIFFICULT STROKE

demnation. Whereas when the same result is obtained by making the pockets more difficult, that objection cannot be urged with equal force ; the table is the same for all, and if a man can bring any stroke to such perfection that he can continue his break to great length, so much the better for him ; he will remain champion till another arises who can go on longer.

No stroke admissible in the ordinary game should be barred when the championship is played for, because the champion ought to be the greatest master of all lawful strokes ; and if hazards are found to predominate unduly the remedy lies in tightening the pockets. But before the next game for the championship is played, cannons and not hazards bid fair to exercise too great an influence. If that match were played to-morrow in this year 1896 on a three-inch pocket table, it is safe to predict that victory would be gained by the man who was best at cushion nursery cannons ; of this there is no question, 'no possible shadow of doubt.' What man in his senses would court constant failure at hazards when success with cannons was within his grasp ? Here, therefore, we are again face to face with a question similar to that which arose on the ordinary table when the spot stroke was brought to perfection ; with this difference, that whereas the strokes in a spot break are each genuine, easily seen and watched by the referee and spectators, and clearly fair, in a break of cushion nursery cannons the reverse is more than probable. Made by trick or sleight of hand rather than by an open stroke, with balls so close that even when the break is stopped and the referee summoned he cannot readily decide whether they touch or not, and when promptly continued remonstrance or complaint is too late to be of use, such a break is open to objections as great as any ever urged against spot play. The scoring is faster far than is possible with the spot stroke, and play is often obscured for many spectators by the performer himself. In this case as in that of hazards no lawful stroke should be barred, it would seem preferable to draw lines round the table parallel to and

at a fixed distance from the cushions, and to make rules somewhat similar to those in force for the *Partie Américaine dite du Cadre*. In this game, when balls 2 and 3 are in the same compartment, that is in one of the rectangular spaces between the lines and the cushions, and therefore are not separated by a line, only one cannon is allowed without making at least one of the balls pass the boundary. There is, in fact, no great difficulty in making rules to defeat tricks which are favoured by obscurity, no cannon otherwise lawful need be barred, and as the breaks must be slightly slower time is afforded for inspection, and if necessary for appeal to the referee. Moreover, the cannon game would be improved, for greater skill is required to continue the series when one ball at least must be some distance from the cushion, and therefore this suggestion has the merit of inciting players to greater exercise of skill in every lawful stroke, whereas the policy of barring certain strokes tends to their neglect and to a corresponding loss of execution.

The objections to having one pattern of table for ordinary play and another for championship matches are obvious, for the games being different the champion may not be the best player on the easier table, even when the spot stroke is barred; and to style a man champion of one game because he has beaten all comers at another is scarcely logical; but the remedy is not so apparent. Two solutions present themselves, only to be dismissed on consideration. First, that amateurs should adopt the three-inch pocket table, in which case there would be one game and the champion would ordinarily be the best player of that game; next, that the championship should be decided on an ordinary table and the three-inch pocket be abandoned. In both cases the difficulties are considerable, the game on the $3\frac{3}{8}$ -inch pocket or ordinary table is the better game for the vast majority of persons, if not absolutely the better game of the two, because of its greater variety, in that hazards play their part more equally with cannons, and because scoring is faster and a freer and better style of play is possible. Indeed, if the three-inch pocket table were introduced to clubs

and public rooms, it would probably be found desirable to reduce the length of the game from one hundred to fifty points, whilst maintaining or only slightly reducing existing charges, because inferior players who form the majority would score so slowly. Again, if the championship matches were played on an ordinary table, success would depend mainly on mastery of the spot stroke, which is held to be undesirable. There is, of course, another alternative—to have a table with smaller pockets than the ordinary but larger than those of the championship table, and perhaps also to increase the size of the balls. It is not safe to be too sure of anything, but at present, so far as is known, such an arrangement has not been tried—save perhaps when Roberts played Ives, and the result was not encouraging ; it may, therefore, be neglected on this occasion.

But even supposing the question of the table to be settled, there is another formidable difficulty in the way of reviving satisfactory matches—namely, how to insure that the game is genuine and that each competitor is trying to win. The great games of old days were for the most part honest, the stakes were real, the rivalry of competitors was evident, and these facts added greatly to their attraction. Men paid a guinea gladly enough to see a game of that sort in comfort who would hesitate to pay five or ten shillings to see a mere exhibition game, although the play in the latter is certain to be more brilliant because it is unfettered by caution. Two causes are apt to have a malign influence on the genuineness of the game ; one, that gate-money is often of more importance than the stake, and the other we may call the weakness of human nature. Both are somewhat thorny matters to deal with, the latter specially so ; but those who know most will most readily admit the difficulty. In time there is reason to hope for improvement, the change of status and character of professional players during the last forty years amply justifies this ; but, as in other ways of life, some men are more worthy of confidence than others, and that course in arranging for a competition is preferable which shall tend to strengthen the

idea that honesty is the best policy. To help this the influence of gate-money should be reduced to a minimum, possibly by making the game short enough to be completed in one day if not at one meeting. The stakes should be substantial, and it is worth considering whether other advantages could be added to make the position of champion more attractive. But its reward must lie chiefly in the honour and distinction it confers rather than in money, and therefore no opportunity should be lost of adding to the dignity and consideration of the post ; whilst even as regards remuneration it must have value, for its possessor will command the highest rates of payment which obtain in his profession.

These remarks concerning the championship are agreed to by Mr. Rimington-Wilson and by others who have studied the subject ; they may not improbably before long have to be considered by those entrusted with drawing up conditions for the next match, which in the ordinary course of things is unlikely to be greatly delayed. For if youth does not advance with the speed which might be expected, age will inevitably tell and lessen the distance between first and second, till a combat on even terms is waged, or the elder retires and allows younger rivals to contest for the position.

Persons interested in the subject of this chapter will welcome the following memorandum kindly furnished by Mr. Russell D Walker, the well-known sportsman, who, amongst other accomplishments, is a player of much merit on a championship table, although in places it repeats what has been already told in other parts of this book.

REMARKS CONCERNING THE BILLIARD CHAMPIONSHIP,
WRITTEN IN 1896

It is a matter of regret to many lovers of billiards that they never now see a match for the professional championship. The obvious reason, of course, is that there is at the present time one player so far superior to all the rest that it would be useless to challenge him without the slightest chance of success. At the same time, there would be a great deal of interest aroused if a second prize was instituted, as it is in several amateur competitions in different branches of sport ; and with such brilliant players as Diggle, Dawson, Mitchell, Peall, and Richards, excitement would run very high as to their respective chances. Up to the year 1849 Jonathan Kentfield was universally allowed to be the greatest exponent of the game, and it was not till the following year that the North-countryman from Manchester, John Roberts, father of the present champion, gradually made his way to the front. He never met Kentfield in a match, the latter declining the contest, but they did in that year play a few friendly games together at Kentfield's rooms at Brighton. From that date, 1850, till 1869 John Roberts was admittedly the champion, and during this period he was able to, and did, give habitually 300 in 1,000 to the next best players, who were Bowles, Richards (elder brother of the present D. Richards), and C. Hughes. During 1869 a young aspirant, Wm. Cook, a pupil of the champion, was being much talked of, and it was said that his admirers thought he had a great chance of defeating John Roberts if a match could be arranged, especially as he had developed wonderful skill at what is now universally known as the spot stroke (of which the champion himself was the introducer, and up to the present the chief exponent), and would be able to make so many consecutive hazards that Roberts' supposed superiority all round would be more than counterbalanced. In fact, so strongly did this idea prevail that at a meeting of the leading professional players, convened to draw up rules for the proposed championship

match, it was agreed that the pockets should not exceed three inches, and that the spot should be placed half an inch nearer the top cushion, thus making it twelve and a half inches distant instead of thirteen. The history of the match, played on February 11, 1870, at St. James's Hall, has often been related, and, as all the billiard world knows, the younger player succeeded in winning the proud position of champion. From that date up to the year 1885 there have only been three players who have won the title. The number of matches played in these fifteen years amounts to sixteen (a list of which with dates and results is given on p. 375), and from the last match¹ up to the present time, a period of ten years, John Roberts, junior, son of the John Roberts whom Cook defeated, has been in undisputed possession of the title of champion. I say undisputed, because no one has challenged him to play under the rules governing the championship matches, which were drawn up for the express purpose of deciding the title, under which all the sixteen matches have been played, and which have never been abrogated or altered. It has been urged by many that the table is too difficult, inasmuch as experts at the spot stroke are precluded from making any large number of their favourite hazards; but it is evident that the intention of the framers of the rules was to render the pockets more difficult, and not only make the spot stroke, but every hazard, whether winning or losing, require the greatest care; and no further proof of their discretion is required when we see that all ordinary matches between the leading players are always now, and have been for some time, played with the spot stroke barred, the fact being that the public soon got wearied of the monotony of the stroke, and would not pay to see it.

Now to bar a legitimate stroke is an absurdity, except in the case of the balls getting 'froze' (as our American cousins say) in the jaws of the pocket, as happened at the Aquarium on April 24, 1891, when T. Taylor made 729 consecutive cannons (and more recently at Knightsbridge, on June 2, 1893,

¹ For a description of this game, see pp. 29-31.

when Frank Ives made 1,267 somewhat similar¹ strokes); but this position is so rare and so difficult to attain, that the case could be met by merely declaring that, should such a contingency arise, the balls should be broken in the same way as they are when touching. To return to the question of the spot stroke, it is *not* barred on the championship table any more than a difficult losing hazard, such as a short jenny; it is merely rendered more difficult, and the greatest accuracy is required for its successful manipulation; but there can be little doubt that Peall, with his extraordinary power of perseverance and unfailing accuracy, would, with practice, in a very short time make fifty consecutive hazards, and probably more. It must not be thought for one moment that the three-inch pocket table is advocated for general use in exhibition matches, for, though caviare to those who have really made a study of the game, the scoring is not rapid enough to satisfy the palate of the majority of the public, whose great idea is to witness something big in the way of figures, and who would prefer to see a break of several hundreds amassed by the repetition of one particular stroke to an all-round break of various strokes from different positions, however masterly the execution, which might not even reach three figures. Still, in spite of this hankering after sensational scoring, if we compare the number of spectators at the fifteen matches for the championship played from 1870 to 1885 inclusive with the attendances at the ordinary spot-barred exhibitions of to-day, and at the same time take into consideration the enormous extent to which the game of billiards has developed during the last decade (I speak only from personal observation), the balance would probably be in favour of the former period.

It must not, however, be forgotten, on the other hand, that there is a great difference in interest to the spectators between a *bona-fide* match for a stake and an ordinary exhibition game, where there is no other incentive than the glory of winning

¹ Taylor's cannons were made on balls jammed in the jaws of the pocket; Ives' cannons were made on balls well outside of the jaws—W 11

Who does not remember with delight the wonderful strengths and neat execution of W. Cook, and the losing-hazard striking of Joseph Bennett, and the keen rivalry which prevailed between these players and the present champion in their contests? Roberts declares that he attributes the height of excellence he has reached to be mainly owing to those years of play on the championship table; and though not himself an advocate for it as far as ordinary exhibition matches are concerned, yet, if called upon to defend his title, he considers that the table which has always been used according to the championship rules should still be adhered to, an opinion in which he is supported by other well-known players of the past and present

We have some reason to hope that before very long we may perhaps see a challenge issued to the champion, so great are the strides that the younger generation are making at the game; and though to those who watch John Roberts play it seems almost impossible that they will ever see his equal, it must not be forgotten that in one remarkable week when giving Diggle more than one-third of the game, viz, 9,000 out of 24,000, the latter absolutely scored more points in the first six days' play than the champion. There can be no doubt that, within reasonable limits, in all games the greater the difficulties presented the greater is the satisfaction in overcoming them, and the higher is the standard of excellence attained; and it is much to be hoped that we may again see such interesting and scientific matches between our leading players as we used to have from 1870 to 1885.

One word more: is it not high time that the push stroke should be abolished once and for all? It is not allowed by any other billiard-playing nation, and is equally unfair with the so-called quill or feather stroke, which was tabooed years and years ago.

R. D. W.

Regarding play on a championship table, little need be said; the practice prescribed for an ordinary one for the most

part holds good, and diagrams of strokes, such as accompany Chapters IV., V, VII., and the figures of nursery cannons in Chapter X, are applicable with but little alteration. As regards cannons generally, it is of course evident that the stroke is the same on both tables, and as to hazards the only real difference is that with easier pockets there is a larger margin for error. Hence a few words of caution as to the execution of strokes and the policy of play are alone required. For making easy losing hazards, certainty is most readily assured by striking ball 1 a gentle strength rather under the centre, this has the effect of slightly diminishing the natural development of rotation and of decreasing the rebound due to elasticity after impact. A ball thus struck seems to travel on straight rather than on curved lines, and the stroke is specially useful for short jennies. Similarly for long losing hazards drag with strength rather under No. 2 will be found very useful: but hazards should be subordinated to cannon play; they should be chiefly used as a means of getting cannon breaks. When, however, they have to be played and are not certainties, it is better to strike with freedom than to attempt to secure success by extreme gentleness and caution; for accuracy is more probable when the stroke is played with customary strength than when great softness necessitates placing the ball at a strange angle. In case of failure also the freer stroke is less likely to leave an easy opening for the adversary, whilst at the same time it may be usefully kept in mind that if somewhat more caution in attempting a hazard is necessary, less apprehension need be felt as to leaving balls near pockets. It is a matter of common knowledge that on an ordinary table the better the stroke for a hazard, that is, the nearer it is to success (so long as that is not obtained), the greater is the penalty for failure. Realising this, many persons play with more strength than is necessary, in the hope of bringing the ball away from the pocket in case of a miss, which often results in consequence of the precaution. When pockets are difficult this consideration may to a great extent be neglected, and attention may be concentrated on

making the hazard. Another point which should be noticed is that amateurs are more nearly equalised on a championship than on an ordinary table. A man who on the latter could give his adversary thirty points in a hundred, would probably find that on the former he could not give more than twenty points. The usual fault is that persons accustomed to the $3\frac{5}{8}$ inch pockets are afraid of the smaller ones, and try a great deal too much for absolute accuracy, a procedure which is simply fatal to success. Hence strength approaching to that generally used by each person will be found best. Should the stroke be missed the balls will come reasonably away, whereas if it should be made, the player has presumably some idea of the position to be left, and a fair chance of continuing the break. By following that policy and by determinedly playing for cannon breaks, specially nurseries, success may reasonably be expected. Do not break your heart over difficult hazards, leave that to the adversary; but hold tenaciously to every chance of cannons. Play, in fact, as Ives did with Roberts. The latter could very possibly give the former half the game in one of the usual spot-barred exhibitions, but when the pockets were reduced in size and larger balls were brought into play, the American had the best of the deal and won accordingly.

From the preceding remarks it will be gathered that whilst for practice the manual prescribed for an ordinary table may be followed, in a game the player must pursue a different policy. Hazards which require strength greater than No. 2 should be avoided, and the ordinary idea of bringing the object ball back to the middle of the table after a middle-pocket hazard, half-ball or finer, should be superseded by playing with reduced strength, and, when the object ball is the red, being contented with leaving it in play, that is, between the lines PM, QN, laid down on many of the diagrams. When ball 2 happens to be the opponent's ball endeavour should be made to leave it in the neighbourhood of the spot. With these qualifications the advanced player (and we think no other should use three-inch pockets) will find the directions for making breaks in Chapter X.

useful, specially those which refer to play at the top of the table and at cushion nurseries ; practice will soon result in a very considerable modification of the ordinary game, but the changes will vary with the personal qualities of the player, who will soon adopt those which suit him best. As scoring on a tight-pocket table is decidedly slower than on an ordinary one, it follows that safety and cautious play have more effect in the former game. Hence potting the opponent's ball and leaving a double baulk, and similar tactics, are more likely to be rewarded with ultimate success than when that style of game is followed on a table with $3\frac{1}{2}$ -inch pockets. Whether that is or is not an advantage is a question for the reader to decide for himself ; one good result with which it may be credited is to encourage the practice of strokes for the purpose of scoring from, or at any rate of disturbing, a double-baulk.

It is, we think, unnecessary to say more at present respecting play on a championship table, in time, perhaps, improvement in amateur form may be so great and so universal as to make the more difficult supersede the easier game, but that day is distant, and speculation as to its requirements is under existing circumstances unprofitable.

Billiard Championship Matches

Points	Date	Players	Won by
1,200	Feb 11, 1870	Cook b Roberts, senr.	117
1,000	April 14, 1870	Roberts, jun, b Cook	478
1,000	May 30, 1870	Roberts, jun, b Bowles	246
1,000	Nov 28, 1870	Jos Bennett b Roberts, jun.	95
1,000	Jan 30, 1871	Roberts, jun, b Bennett	363
1,000	May 25, 1871	Cook b Roberts, jun	15
1,000	Nov 21, 1871	Cook b Jos Bennett	58
1,000	Mar 4, 1872	Cook b Roberts, jun	201
1,000	Feb 4, 1874	Cook b Roberts, jun	216
1,000	May 24, 1875	Roberts, jun, b Cook	163
1,000	Dec 20, 1875	Roberts, jun, b Cook	135
1,000	May 28, 1877	Roberts, jun, b Cook	223
1,000	Nov 8, 1880	Jos Bennett b Cook	51
1,000	Jan 12 13, 1881	Jos Bennett b Taylor	90
3,000	Mar 30 and 31, and April 1, 1885	Roberts, jun, t. Cook	92
3,000	June 1, 2, 3, 4, 1885	Roberts, jun., b. Jos. Bennett	1,640

CHAPTER XII

THE RULES OF THE GAME OF BILLIARDS

IN a game so scientific and at the same time so popular as billiards, played, as it is occasionally, for important stakes, the rules evidently should be clear, precise, and sufficient. That those in force in 1895 fulfil these conditions will not be affirmed by any person of experience ; indeed, more versions than one exist and are current, whilst the opinions of experts even do not coincide as to the provisions which should be included. Hence, it is evident that the problem cannot be satisfactorily solved until the various matters have been fully considered by a carefully selected body of men, in which the professional element is sufficiently but not predominantly represented, and which should contain persons capable, from habit and training, of recording the decisions arrived at lucidly and in good English. The work to be done is in many respects similar to that of drafting an Act, and similar qualifications are required for doing it well.

In this book, however, in dealing with rules, the main question is, What version at present existent has the best title to the obedience of players? This, we think, can only be answered in one way if we deal with things as they are, not necessarily as they should be, and that is by accepting as valid the revised rules prepared by the Billiard Association of Great Britain and Ireland. They are far from satisfactory, but under them the principal games of recent years, both exhibition and those for genuine money, have been played, and therefore they have

perhaps the best title to be considered binding. Sold, too, by the Association at half a crown a copy, they form, it is believed, its main source of income. But both title and income are held on a precarious tenure, for there is little doubt, the present code being so imperfect, that if a committee of suitable persons were formed an improved set of rules might be framed which would supersede existing ones.

In an article written for the first number of the 'Billiard Review,' at the champion's request the present writer thus summarised the needs or wants of the Association rules :—

Considered generally, the code requires rearrangement on a system. It should begin by defining the game and implements, by prescribing the positions of the spots, the baulk-line, the *D*, and so on, keeping such preliminary matters at the commencement, and not scattering them broadcast. . . Then the code should proceed step by step, one leading to another, explanation or definition should precede, and not succeed, reference to terms. . . Again, some of the rules seem superfluous or capable of being embodied in other rules, thus reducing the number and tending to their simplification.

In commenting on this, John Roberts remarked that it was high time that the rules were recast, and he has kindly offered to give any assistance in his power.

As a general guide to the preparation of a code it was stated in the article already quoted that the rules should be as few, as simple, and as clear as possible, of a nature general rather than particular; and that for one offence one penalty, ample, but never vindictive, should suffice. Inquiry was suggested how far accidental may be distinguished from intentional offence. Further, the principle that the struggle for victory ought to be strictly confined to the players, no one under any pretence soever being permitted to assist or advise either, must be recognised,

and provision should be made for offences, recollecting that very often the offenders are spectators, and that in dealing with them it

may be difficult, if not impossible, to enforce a penalty. Again, knowing, as all do, how the custom of different rooms varies, and how habitually in certain places great laxity prevails, how far is it wise to make laws with the full knowledge that they will be broken with impunity and by common consent?

All will agree that unless such rules are plainly required in the interests of the game they should be cancelled; but when they are beneficial and necessary they must be supported or provided, and it would seem best that the option of enforcing them should be left to the non-striker. Each rule should have a brief marginal reference to its subject, and when explanation is difficult or doubtful it should be illustrated by examples. As these considerations may help the framers of the next set of rules, it seems right to include them in this chapter.¹ The following remarks on points connected with the rules may be useful in the preparation of a code. These are

1. The desirability or otherwise of attempting to discriminate between the act of aiming and the act of striking
- 2 The necessity for a special penalty for playing a miss otherwise than with the point of the cue.
- 3 Playing with the wrong ball
4. Foul strokes.
- 5 Procedure when player's ball touches another ball
6. Offences committed by persons other than the players
- 7 Obstruction of the striker by the non-striker.
- 8 How far the marker may assist either player

Dealing with the questions in their numerical order, let us examine.

1 The results of trying to discriminate between the act of aiming and the act of striking. Now, these two together constitute a stroke, the first being the preliminary, the second

¹ In accordance with these general principles a code has been prepared. It has received the support and approval of many of the best clubs and some of the best professional players. Its publication has unfortunately been delayed.

the final part, and it is not always easy to say where the one ends and the other begins. Here, therefore, there is an element of uncertainty which if possible should be eliminated, the more so because argument as to a fact of which no one but the striker can be really cognisant is avoided. The matter can be satisfactorily settled by simply ruling that if a player touches his ball his doing so shall be considered a stroke. In addition to removing a somewhat thorny subject of discussion, which in itself is sufficient recommendation, such a provision is very much sounder than any attempt to divide a stroke into its component parts and to treat each differently. Why should carelessness during the first part of a stroke be pardoned whilst during the last it is punished? It is not unusual for a striker who inadvertently touches his ball to remark that he was not in the act of striking, and to proceed to give a safe miss. This often happens when a difficult stroke is attempted and the safe miss is unquestionably his best game and the worst for his adversary, who, realising the fact and perceiving the opening for profitable generosity, begs the striker not to mind the little accident, but to replace his ball and play the stroke again. With a young player this disinterestedness is usually rewarded, but an older one will decline to take advantage of such good-nature and will adhere to the safety miss. Now, if the touch was held under the rules to be, as it is actually, a stroke, there would be no inducement for this little by-play, and the offender would not have the option of embarrassing his opponent and escaping from the effects of his blunder by playing for safety. A stroke is a stroke whether played hard or soft, whether intentional or accidental, and the rules should uphold this fact. If they did (and this is a further recommendation), several rules or provisions in the code of the Association¹ might be expunged, and it would thereby gain in clearness and simplicity.

2 Playing a miss otherwise than with the point of the cue.

¹ The code referred to in these remarks is that of the Association before revision, as it was in 1895.

The general rule is that all strokes must be played with the point of the cue, and that they are foul if otherwise made. This perhaps meets all cases sufficiently save that of giving a miss for safety. Some players, from carelessness or in order to assume a *déagé* style which they consider to be attractive and indicating that they do not need to stand on much ceremony with their opponent, give the miss with the side of the cue, and if they have made the ball travel too fast they have no hesitation in stopping it. As matters stand, all that can be done in such a case is to insist on the person playing the stroke properly, but this is insufficient, and it is not absolutely clear whether he can be forced to do so. Distinct provision for this should be made and a sufficient penalty provided, so that this practice, which is discourteous to the adversary, and which, if the ball is stopped, involves two offences, may be prevented. It is a bad practice, too, for the man who indulges in it, for he may do it on some occasions when unpleasantness would result, and, moreover, indulgence in the habit is likely to lead to loss of power to give a miss in the proper way.

3 Playing with the wrong ball. Under the Association rules, if the striker plays with the wrong ball the opponent has the choice of three penalties and the option of claiming them. He cannot, however, enforce any unless the error be discovered and claimed before the next stroke. This rule seems objectionable in more ways than one. Unless there are very cogent reasons for ruling otherwise, one offence should have but one penalty, and the adversary, who is an interested party, should not be permitted to decide what measure and form of punishment are appropriate. Surely an adequate penalty could be devised the infliction of which would have no suspicion of vindictiveness. The limitation, too, is not very fortunate, and usually leads to discussion, for the offender often avers that he played with the ball which the non-striker did not use; this of course is really no argument, but it is often successful, for men generally prefer to avoid dispute.

4. Foul strokes. The Association Rule 30 is incomplete

and badly worded. Presumably, all strokes which are not fair are foul, and if a list is given it should be as complete as possible. Were this attended to, and were the recommendations under 1 accepted, the result would be to decrease the number of rules and to simplify the code

5 When player's ball touches another ball. In old days, if under these circumstances a score was made, the stroke was held to be foul and the opponent broke the balls. This was apparently thought to bear too severely on delicate play, specially as the touch was often the result of imperfection in the balls or table; and the present rule was introduced, which provides that the red be placed on the spot, the non-striker's ball on the centre spot, whilst the striker may play from baulk. This change enormously improves the value of close positions for cannon play, and one of its results is the fearless cultivation of nurseries; but whether that is a benefit to the game of billiards is another matter. The question how to deal with the case of balls which touch is really surrounded with difficulty. It has always appeared hard that if at the end of a stroke fairly made the striker's ball should touch another ball, his next stroke should be foul. He has not offended, and why should he be punished for playing with exact strength? The only apparent reason for ruling the next stroke foul is that it is a certainty; the striker, if he can play into any pocket or on the third ball, must score, and he cannot give a miss. What is the objection to this? Is not the object of all work at billiards and the measure of success thereat to be able to leave a certainty to follow each stroke? In the case of close cannons the stroke is practically no more certain if the balls touch than if they are the conventional small distance apart. Other unknown considerations may affect the question and make the present or former ruling fair and advantageous for the game, but in their absence no sufficient case is made out against abolishing the rules respecting balls touching and permitting the striker to play on. Possibly the objections to this in nursery-cannon play are so great as to make the arrangement undesirable, but it is open to

question how far it would materially affect the length of the series. At any rate, whilst expressing no strong opinion, it is clear that the proposal merits consideration. A collateral advantage would be doing away with the need for a reference to the umpire or marker on a point often most difficult to decide, and one concerning which mistake is frequent.

6. Offences committed by persons other than the players. These are not easily dealt with, chiefly because of the difficulty of enforcing a penalty ; and many of them, moreover, are rather the result of bad manners, want of observation of the etiquette of the room, and ignorance, than of intention to offend.

Perhaps the commonest and one of the most offensive errors a spectator can be guilty of is offering advice to a player. This is of course promptly resented if there is money on the game. That, however, is not enough ; the mischief may be done, and no amount of penitence can then compensate. But the practice is equally reprehensible if there is no money at stake ; the competitors should have a fair field and no favour.

Another offence is obstructing a player, and this expression covers accidentally coming against him, or being in his way when striking a ball, or doing any other act which interferes with his stroke—moving in his line of sight, scratching a match, or extinguishing it by waving it up and down in front of him, entering or leaving the room on the stroke, speaking to a player or conversing in a loud tone sufficient to distract his attention. Want of the certainty that these matters will receive consideration, and of all power to enforce them except at the risk of being considered unreasonable, is one of the reasons why really good amateurs abstain so largely from playing in clubs. It is worthy of consideration whether a spectator who sees the game wrongly marked should be allowed to state the fact. We think that he should not have this permission, on the principle that the struggle should be strictly confined to the players, and that they, and they only, should be allowed to question the score. The spectator is almost as likely to be wrong as right, and an interruption is caused which had better have been avoided

Lastly, it has been usual to provide that in case the marker or referee could not decide a point, the majority of spectators might be appealed to. As a rule, the majority of spectators know so little about such matters, and, not being so well placed as the marker or referee to judge of questions of fact, it would seem in every way preferable in case of doubt to produce a coin and leave the matter to the arbitrament of chance.

7. Obstruction of the striker by the non-striker. The intention of the rules whereby deliberate obstruction or wilful interference with the run of the balls shall be punished by the loss of the game is excellent, as also is the provision that the non-player shall leave the table and avoid the player's line of sight ; but the rules are not very definite. In the first place, what is deliberate obstruction ? Clouds of tobacco smoke blown across the table interfere with sight, and pieces of tobacco and ashes obstruct the run of the balls ; a remark which distracts the player's attention is an obstruction as much and as deliberate as if the opponent laid his cue on the table, but it is less tangible and more difficult to deal with. What is desired is complete liberty and freedom for each player when in possession of the table ; it matters comparatively little whether the offence is accidental or intentional, for the penalty should be sufficient to meet the graver case. If a seat is available for the non-striker, it is surely not much to ask that he should occupy it and remove himself to a fair distance from the table.

8. How far the marker may assist either player. Regarding this an opinion has already been plainly expressed that the struggle should be strictly confined to the players, neither of them being allowed to receive extraneous advice. It is no argument, or but a very poor one, to contend that the same advice is open to both players ; and no such sophistry can make it right that the judgment and eyesight of the marker should be at the disposal of an adversary who is either too lazy or too blind to see for himself how far the cue-tip is from the ball. When two men are playing billiards, he who helps the one injures the other, and the more careless and lazy the performer,

the more help will he receive, a result clearly injurious to the best interests of the game and unfair to the attentive man. The latter will seldom err as to which ball he should play with, whilst the former after almost every break will commence by inquiring which is his ball or play with the wrong one. Again, strokes with the half or long butt are fruitful causes of failure. Is it right that a player should be permitted to ask the marker whether the cue-tip is within proper distance of the ball? Certainly not. If one of the players' sight is better than the other's, he should profit thereby, just as he may lawfully profit by any other advantage he is fortunate enough to possess. Believing, as we do, that it is most important to let the struggle lie absolutely between the two combatants and to preserve the strictest neutrality, and that advice or assistance of the nature indicated should, if asked for, be refused, it follows that the custom some markers have of offering the rest or the half-butt is at least equally objectionable. It is often done in perfect innocence, but it may have a most undesirable effect on the game, and the impulse to take the initiative should be restrained.



ARE THEY TOUCHING P

CHAPTER XIII

PYRAMIDS, POOL, AND COUNTRY-HOUSE GAMES

BY W. J. FORD

WHEN and under what circumstances winning-hazard games were invented, billiard history does not record. Every player, however, must have met men with little aptitude for the more scientific game of billiards, who, being blessed with good sight and sound nerve, play well at pyramids and pool. For their benefit these games were doubtless produced, demanding as they do considerable skill and knowledge, and lending themselves especially to being played for money. It is an established fact that persons will play billiards for nothing who would never dream of playing pyramids, &c for love ; and also that many who would think twice before risking a shilling or half a crown on a hundred game at billiards would lightly and cheerfully take part in a game of pyramids or pool for stakes at which a far greater sum can readily be lost or won.

One thing the beginner must remember—that he will have to pay for his experience. He may be a fair hazard-striker, with a moderate power of cue and sound ideas about strength and position, but until he has played a good many games of pool and pyramids, with the money up, and has overcome the nervousness incidental to playing in public for a stake, he will never master the game. All must go through the fiery ordeal of the public room, where every shot is fired in earnest and there are no blank cartridges. The price to be paid must depend on the beginner's nerve and his aptitude for

such games, but he will find that practice and observation work wonders, and that when he has watched fine players and played with them, his losses will begin to dwindle, and gradually transform themselves into winnings.

A few general hints may not be out of place before discussing the different games in detail. It is really important to use the same cue as far as possible, it is as essential as one's own gun, bat, or racquet, and as jointed cues can now be procured, which are easily carried in the hand or packed in a portmanteau, it is prudent to get one. Some players fancy a heavy cue, with a broad top, for winning hazards; but this is a matter of taste, and it is generally wise always to use the same weapon. It should be remembered, in playing pool or pyramids after billiards, that the balls are usually smaller, lighter, and less true. Another essential point is a strict adherence to rules. It is an unfortunate thing for billiards that this principle is not observed with rigid strictness, that fouls are often not claimed, that players are allowed to get on the table, and so forth; but the curious thing is that, lax as many men are on these points over a game of billiards played for nothing, they are very strict when they are playing for money; so as long as billiards is played, it is perhaps well that there should be a small stake on the game, if only to induce *every one* to make Sarah Battle's whist the model of what his billiards should be. Her celebrated wish was 'the rigour of the game. She took and gave no concessions. She hated favours. She never made a revoke, nor ever passed it over in her adversary without exacting the utmost forfeiture;' and where she emphatically asserted that cards were cards, I repeat that billiards is billiards. Again, the etiquette of the room should be most carefully observed, though it is frequently neglected. It is the duty of the man who has played his stroke to retire 'to a reasonable distance and keep out of the line of sight'—the rules require this; but there are many people, unfortunately, who think this a good time to light a pipe, talk

in a loud tone of voice to a bystander, give stentorian orders to the waiter, and so forth, forgetting that a game is in progress which is making every demand on the striker's nerve and self-possession. Such offenders are numerous, they are public nuisances in the room, and it is small consolation to the persons disturbed to be assured that their delinquencies were unintentional. Any game that is worth playing at all is worth playing seriously and strenuously, and the cultivation of habits of silence, decorum, and self-restraint is a duty we owe to our friend the enemy and have a right to expect from him in return.

PYRAMIDS

This game is played with one white and fifteen red balls, the latter being set up in the form of a triangle or pyramid, with the apex-ball nearest to the baulk-line and on the pyramid spot. As a rule, only two players take part in a game, and the order of playing is decided by lot. The first stroke is played from the **D**, as are all subsequent strokes if the white ball has gone into a pocket or has been forced off the table. The object of the game is to hole the red balls with the white, each ball so holed counting as one; but, should the striker make a losing hazard (notwithstanding that he holes a red ball with the same stroke), or force a red ball or his own off the table, or miss altogether, he loses a ball—*i.e.* one is deducted from his score and a ball put up on the table. Any ball or balls he may have taken by such a stroke are put up as well. If the striker's score is love, and he incurs this penalty, he is said to owe one (or more, as the case may be), and no ball can be put up till he has made a winning hazard; if he owes more than one, a ball is restored for each hazard he makes, until he has paid off his debts. After a miss the next player plays from where the white ball stops; but if the latter is pocketed or forced off the table he plays from the **D** at any ball he chooses, whether in baulk or not. When only two balls—the white and one red

—are left on the table, the game becomes single pool, after white has played on red, red plays on white, and so on till one of the two is holed

These are the salient points of the game; other details may be gleaned from the printed rules which should be in every billiard-room. Points are scored (see Rules 4 and 5)¹ by giving balls or owing balls, or both. When a player gives one or more balls, they are scored to his opponent before the game begins, and are removed from the table. If he owes one or more, the first time a winning hazard is made the ball is put up on the table, and nothing is added to the striker's score till all the balls he owes have been put up. When the odds are combined, each ball given is removed, and no hazard counts till all debts are paid, *e.g.* if he gives one and owes two, one ball is removed (see Rule 4), his opponent scores one, and the giver of odds cannot score till he has holed two balls, each of which has to be put back on the table (see Rule 18).

The rules for foul strokes are the same as at billiards, but if a player *wilfully* touch a moving ball, he loses the game;² to do so accidentally makes that stroke foul (see also Rule 23).

I once saw a pretty commentary on Rule 18, which directs that a ball which has to be put up be placed on the pyramid spot. The player, who owed four, made a hazard and got exact position behind the pyramid spot in a line with the corner pocket, and, screwing back each time, holed each ball as it was put up.

Balls forced off the table are put up again, but the striker's break is at an end unless he also holes a ball (see Rules 18 and 19).

Nothing can be said on the question of handicapping players. Of course their relative skill at billiards affords no criterion of their relative powers at pyramids. A few games

¹ The numbers quoted are those of the Billiard Association's Rules.

² The rules do not say for how many balls the offender has to pay: presumably all that are left on the table are scored to his adversary

will best decide the question ; but it may be remarked that to give a ball is a far higher handicap than to owe a ball, as the adversary starts with a point to the good, and there are only fourteen coloured balls on the table ; whereas the player who owes a ball only forfeits the first hazard he makes.

Before the game commences the first step is to set up the balls properly. In theory each ball should touch its immediate neighbours, but in practice this is of course impossible. They should, however, be collected in the triangle, and then rolled smartly up and down parallel to the sides of the table, the apex-ball never going beyond the pyramid spot. After this has been done two or three times the motion should be sharply stopped when the apex-ball is on the spot, and the pyramid will then be fairly correct. There are three ways of playing the first stroke, two of them unsound. The first wrong way is to smash the pyramid by a vicious hit from baulk, for which Captain Crawley, in 'The Billiard Book,' recommends a mysterious 'under-handed stroke ;' but in whatever way the stroke is played it is unsound, as there are only two pockets behind the pyramid into which to drive a ball. The second wrong method is to play slowly up the table with a little side, missing the pyramid on the upward journey, and just dropping on to it from the top cushion. Old-fashioned players are fond of this opening, but it is not sound, as the adversary can easily get safe, or, if he likes, he can smash with four pockets open to him. Whether he be wise to do so is another question ; with a weak adversary, to whom he is giving odds, it may be advisable. I have seen no less than five balls disappear after such a stroke ; but if a winning hazard is not made, the break of course goes to the other side : it is a matter of speculation, the chances being naturally in favour of the stronger player. At no time should a smash be tried except when four pockets are open—*i. e.* from the top of the table, a stab or screw-back should be used, so as to avoid as far as possible the mob of flying balls, which may kiss the white into a pocket. The third and orthodox opening is to play at the end ball

of the row next the base of the pyramid with strength sufficient to leave the white ball as near to the bottom cushion as possible. If the pyramid is properly set up, the opponent has no easy stroke left, though occasionally a ball is malignant enough to detach itself and come down the table. This is generally the result of either careless setting up or of striking too hard, but if this opening stroke is properly played, the second player will have nothing better to play for than a more or less difficult stroke for safety, and so the game will proceed till the pyramid is gradually shaken and finally broken up, but in playing for safety it is sometimes advisable to disturb the pyramid, if possible, it being difficult for one's opponent to steer a safe course when there are rocks ahead in the shape of balls.

It is often safe to leave the white ball near the pyramid, provided that it has not been greatly disturbed, for, if the players are equal, neither should risk a smash, for it is, after all, even betting which player profits. The best safety of all is to leave the adversary far away from a ball and as near to a cushion as possible, but if he can retaliate in kind, not much good will have been done. Watch the score, and play to the score. The leader should play a cautious rather than a dashing game, as a losing hazard not only diminishes his score by a point, but also gives his adversary the advantage of playing from baulk with an extra ball on the table. 'When in doubt play for safety,' is a golden rule, but a doubtful hazard may often be tried when one can get safety as well. Beginners should be cautioned to watch carefully for foul strokes, especially when the rest or spider is being used. A knowledge of the spot stroke and its variations is invaluable, involving, as this stroke does, every form of screw, stab, and following stroke; while the stop stroke is also most useful—*i.e.* a sort of stab that leaves the white ball on the place just vacated by the red.

When a player is familiar with ordinary winning hazards, and can make them with some facility, he should devote himself to the making of breaks—*i.e.* a series of hazards. Diagrams I. and II. may serve as examples, showing how

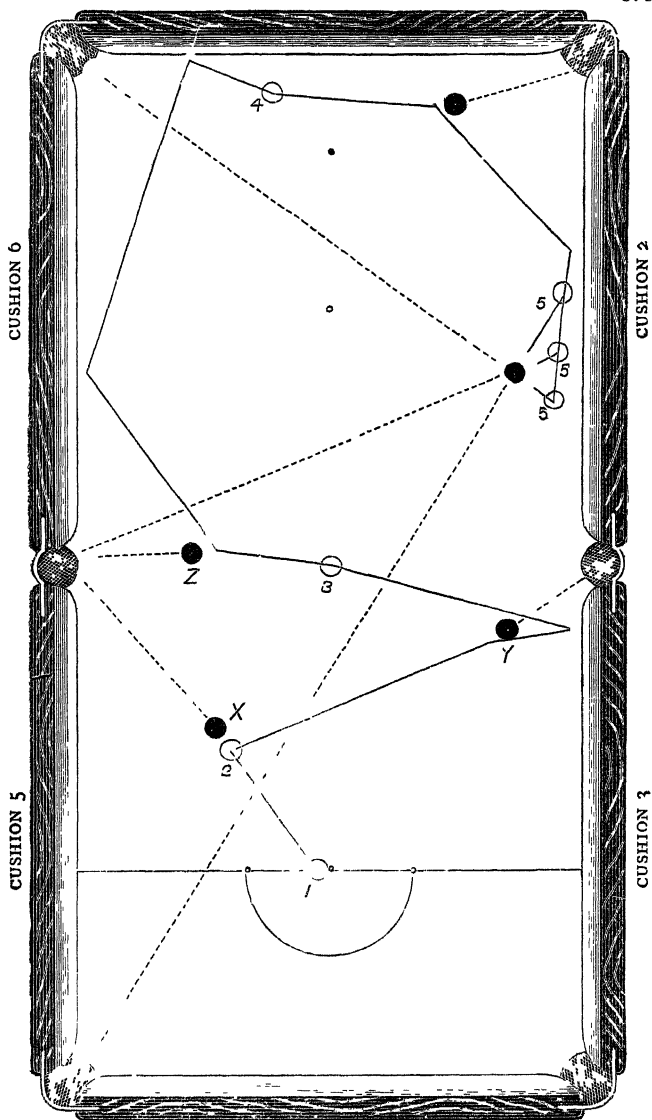
position should be got so that one hazard may lead on to another.

Nor should the famous *dictum* about the spot stroke be forgotten—viz. that the first and most important point is to make sure of putting in the red. Supposing, then, that the balls are left as in Diagram I., the problem is to take them all in a break, which may be done as follows, the figures representing the successive positions of the white ball :—From position 1 there is an easy hazard, and position 2 may be easily gained. The same remarks apply to the next stroke, but from 3 a ‘run through’ with right-hand side is required so as to get to 4. Here there is the option of dropping ball x quietly into the middle pocket, leaving an easy shot on v, or of stabbing v and getting position 5. If the latter stroke is successfully played, the rule of ‘never play for a middle pocket at single pool’ should decide the striker to drive x gently down to the left-hand bottom pocket, leaving his ball safe under the side cushion.

The break shown in Diagram II. is by no means so easy. It may be played as follows :—From position 1 a gentle stab, screwing back a little, should be played ; from 2 is required a semi-follow with left-hand side. For the third stroke strong right-hand side is used, the top cushion being utilised or not according to fancy, and the fourth also requires some right-hand side, but the proper play is to try to get such position as will leave the best chances for the final hazard. It may also be noted that by playing on ball v first there will be but a poor chance of getting ball x in the course of the break, as ball z will clearly be the next one to play at. These two breaks are only suggested for useful practice, and to show the beginner some of the devices necessary for success.

I will now discuss certain strokes of frequent occurrence, for which special hints are necessary, plants and doubles being among the most important. They have been to some extent dealt with already,¹ but are more common at winning-

¹ See pp 153 and 245.



CUSHION 4

Diagram II

hazard games than at billiards, and consequently not only do they demand careful attention, but also verification by practice, the relative positions of the balls being frequently altered, and the varieties in the results noted and studied. Another very important class of strokes occurs when the object ball is under the cushion, a common situation in all games of pool. Diagram III. shows two examples, though stroke B is really only a modification of stroke A; still, it deserves separate consideration, as the hazard is very difficult, and the position of the striker's ball after the stroke has been played is most important. Example A may be considered typical; the player's ball is on the centre of the D and the object ball half way up cushion 2. Play slowly, about No. 1 strength, so as to hit ball and cushion simultaneously. Ball 2 will drop into the pocket, and ball 1 will travel towards the spot. If position is desired to the right of the spot, a little left-hand side should be used, and it even seems to make the hazard easier, a sharper stroke with right-hand side will bring ball 1 towards the middle of the table. This stroke should be practised with ball 2 at such positions as P, Q, R, and S, and the resting place of ball 1 should be carefully observed. It is clearly not a good stroke for single pool, as the balls are left too close together. Stroke B is not at all easy, but it is worth playing for, as it cannot leave much. Ball 2 must be cut very finely—in fact, play just not to miss it. If it is missed on the upward journey, left-hand side, which is almost essential to the stroke, will cause ball 2 to be hit from the cushion. x and y show the direction of ball 1 according as no side or left-hand side is used.

There are no strokes more common and none which require more care than those in which the object ball is close to a cushion, nearly at right angles to the path of ball 1 and a long distance from it. The paths of both seem, from the mere proximity of the cushion, to be regulated by an entirely new code of dynamic laws, the fact being that the whole conditions of the case are not correctly realised. It is here

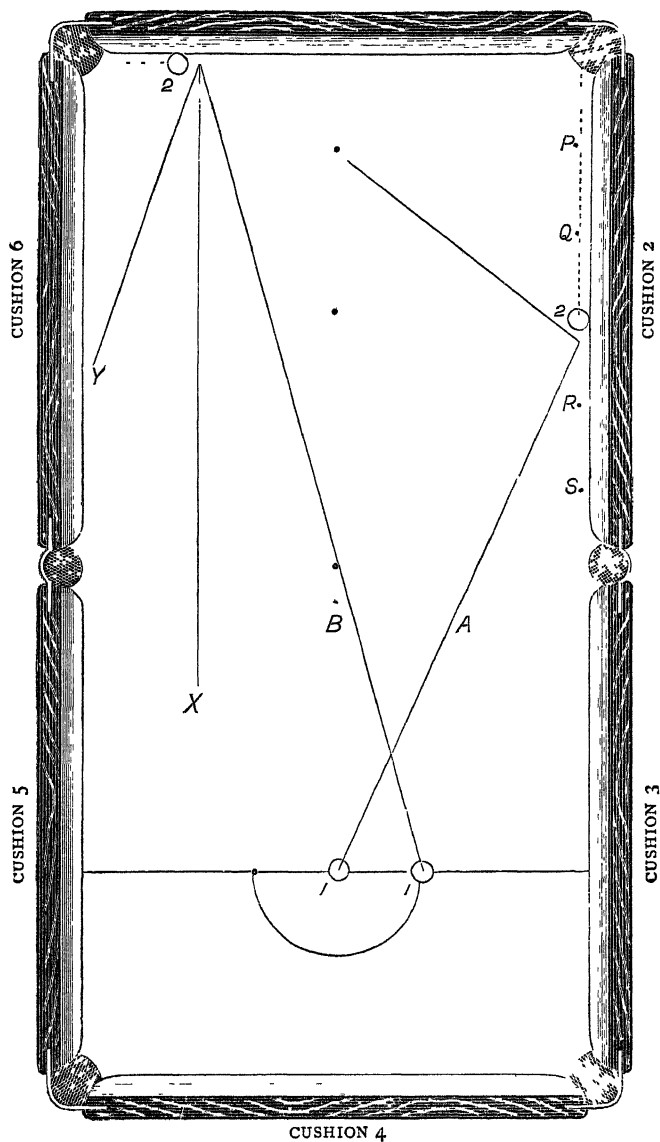


Diagram III.

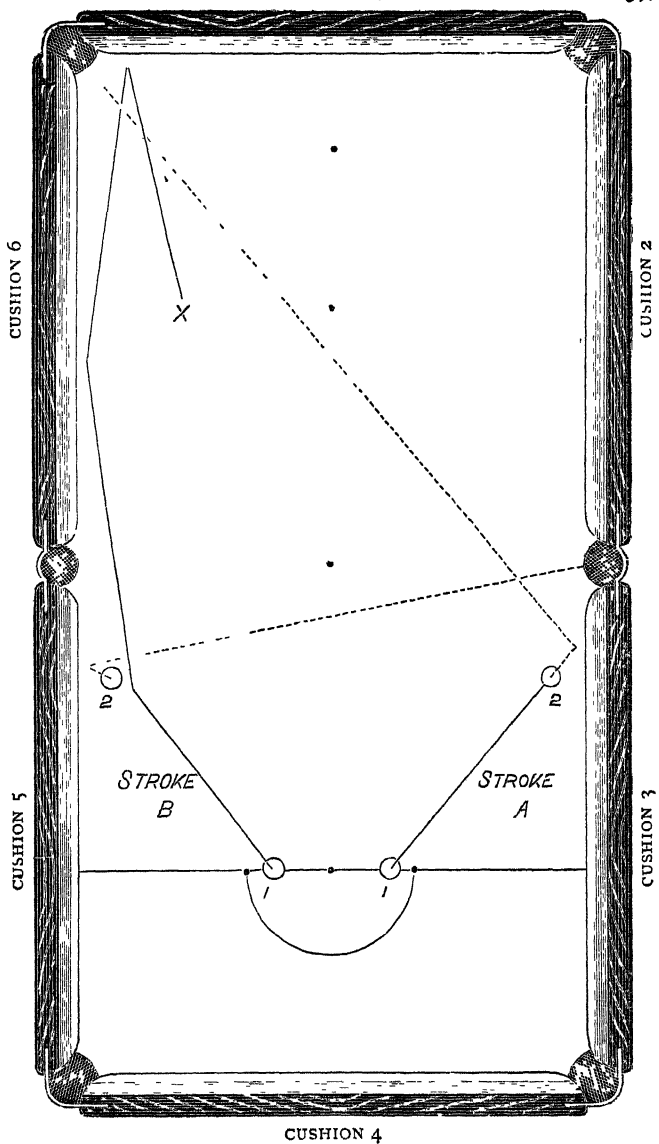
that the inestimable qualities of side, as an agent productive of pace, are called in to assist ; for by playing with direct side and cutting ball 2 very fine, its course will be restricted, and the side will cause ball 1 to travel freely down the table ; but here, as in all things, an ounce of practice is worth a ton of theory, and more can be learned by an hour's practice than a week's reading.

To the serious student the ' R.-W. Billiard Diagram Notebook ' ¹ is recommended, in order that the results of practice and observation may be recorded, for, as Captain Cuttle might have said, ' These things, when found, should be made a note of '

Diagram IV. shows a useful double in stroke A, ball 2 being some distance below the middle pocket, and two or three inches from the cushion. Ball 1 should be placed approximately as shown in the diagram ; but practice and experience can alone show the exact place, depending as it does on the position of ball 2. To make the double, play full on ball 2. Ball 1 can be made to reach the top of the table, if desired, by the use of strong left-hand side and follow. For single pool a stab is of course the right stroke. If the top pocket is blocked, or if for any other reason (*e.g.* for the sake of position) this stroke is undesirable, there is a good chance of a double as shown in stroke B, ball 2 being struck half-ball, and ball 1 following approximately the lines terminating in x. For the sake of practice the position of ball 2 should be shifted towards the pocket, and also further down the table. The further it lies from baulk, the finer must be the cut, and the harder the stroke. The position of ball 1 should be carefully noted each time, and also the point at which the object ball having been gradually moved *down* the table, a kiss occurs and prevents the double into the middle pocket.

The stroke shown in Diagram V. is of common occurrence in single pool, and may appropriately be here explained, as every game of pyramids eventually becomes one of single pool. The

¹ Published by Webster, 60 Piccadilly.



CUSHION 4

Diagram IV.

type of stroke is so important that it should be practised from various positions—first without side, and then with side both right and left, the ultimate position of the striker's ball being the main feature of the stroke. The direct hazard is of course on, but only special circumstances would justify any but a first-rate hazard-striker in trying for it. In the diagram p z shows the course of ball 1 when no side is used, q y when played with strong left-hand side, and r x when strong right-hand side is employed. Strength is most important, and observation alone will show when a kiss occurs as the balls cross each other's track; but the chances of this are much diminished when reverse side (in this case *left* side) is used. If ball 2 is near the cushion, a sharp stroke is necessary, but the double shown in stroke A, Diagram VI., is the better game. All the doubles shown in this diagram are useful, especially for single pool. Stroke A is played with a stab, stroke B with follow, so as to leave ball 1 under the top cushion. Stroke C also requires a stab, strength being judged so as to leave ball 2 close to the pocket, if it is not holed. In both B and C ball 2 might possibly be cut in, but the double is, for pool at least, the safer stroke.

The question of plants has been already alluded to in Chapter VII, which should be carefully studied, as such shots are infinitely more common with the fifteen-pyramid balls than at billiards. In the plant, pure and simple, the balls are touching or practically touching, but if what may be called the second object ball is fairly near to the pocket, a plant is often worth trying, though some caution is necessary, as a leave is very likely to result if the stroke fails. The principle may be described as playing a ball on to a certain point in a third ball, this point being on the line leading to the centre of the pocket. Thus, by means of ball 2, ball 3 may be holed, though, with a view to a possible leave for the adversary, the stroke is too risky to be recommended for general use.

It should be noticed that a pocket is considerably enlarged so to speak, when there is a ball in the position shown by fig. 2,

as from almost anywhere to the right of the diagonal drawn through that pocket a ball may be holed off ball 3, either

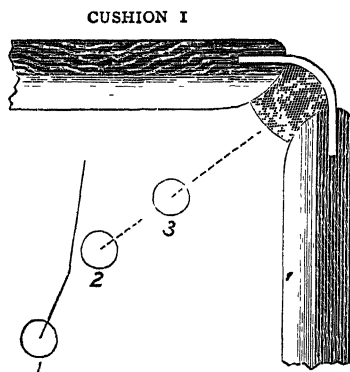


Fig 1

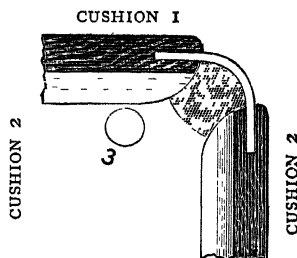


Fig 2

directly or off cushion 2, or it may be put in without touching ball 3, which will then be left for the next stroke.

Fig. 3 shows a neat stroke. Balls 2 and 3 are touching. The line passing through their centres is at right angles to the

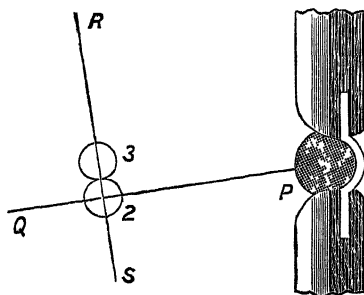


Fig 3

line drawn from ball 2 to the centre of the pocket. Then from any point below P Q, and even from some distance above it, a winning hazard on ball 2 is with ordinary care a certainty.

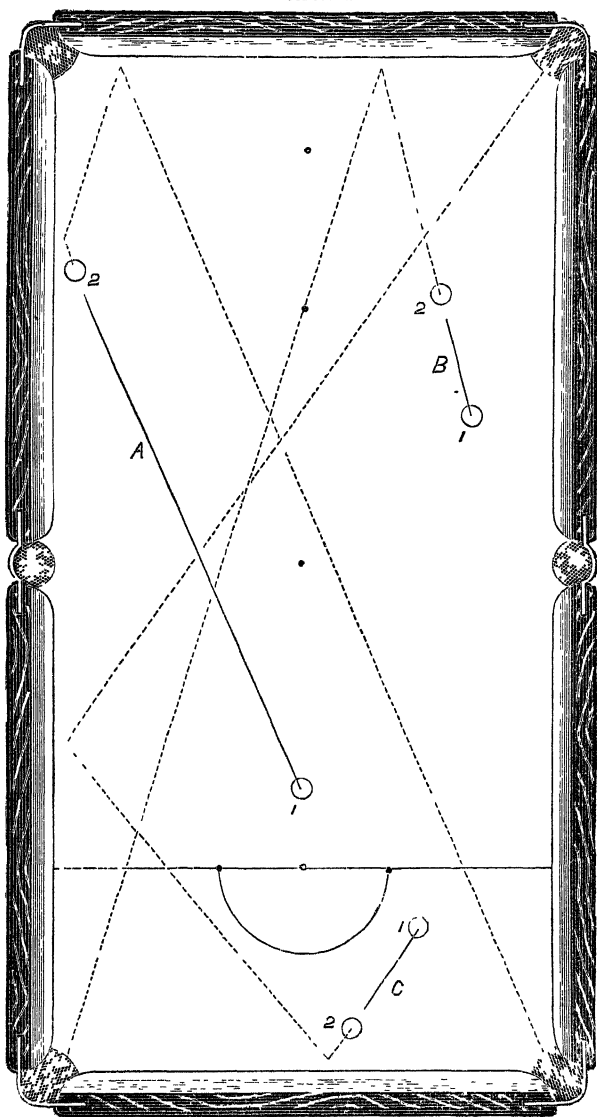
In fig 4 a useful but rare stroke is shown. The two balls are touching or nearly touching, but are not aligned on the pocket. By playing a push shot, quite quietly, the point of the cue, never quitting ball 1, gradually directs ball 2 towards the pocket. The cue should be directed

CUSHION 6

CUSHION 2

CUSHION 5

CUSHION 3



CUSHION 4

Diagram VI.

as much *above* P as the pocket is *below* it. A *stroke* with left-hand side will have the same effect, but to enter into reasons would be to open up the whole question of push strokes.

In Diagram VII. stroke A suggests a method of making a winning hazard which, though in itself easy, may be dangerous when the player is in a cramped position. Ball 2 is close to the pocket, and ball 1 is in a straight line with it, but so hampered by the cushion that a stab shot is out of the question. The hazard may easily be made by playing off cushion 6, as shown, and ball 1 may be left in the direction of the spot. This type of stroke, by the way, is capable of much development and should be studied. The strokes marked B₁, B₂, and B₃ suggest

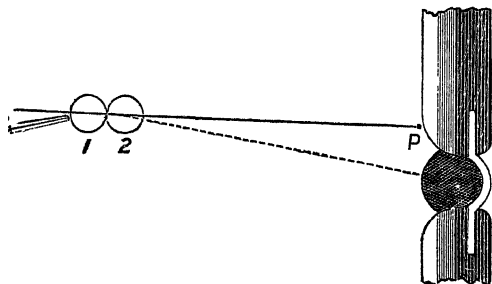
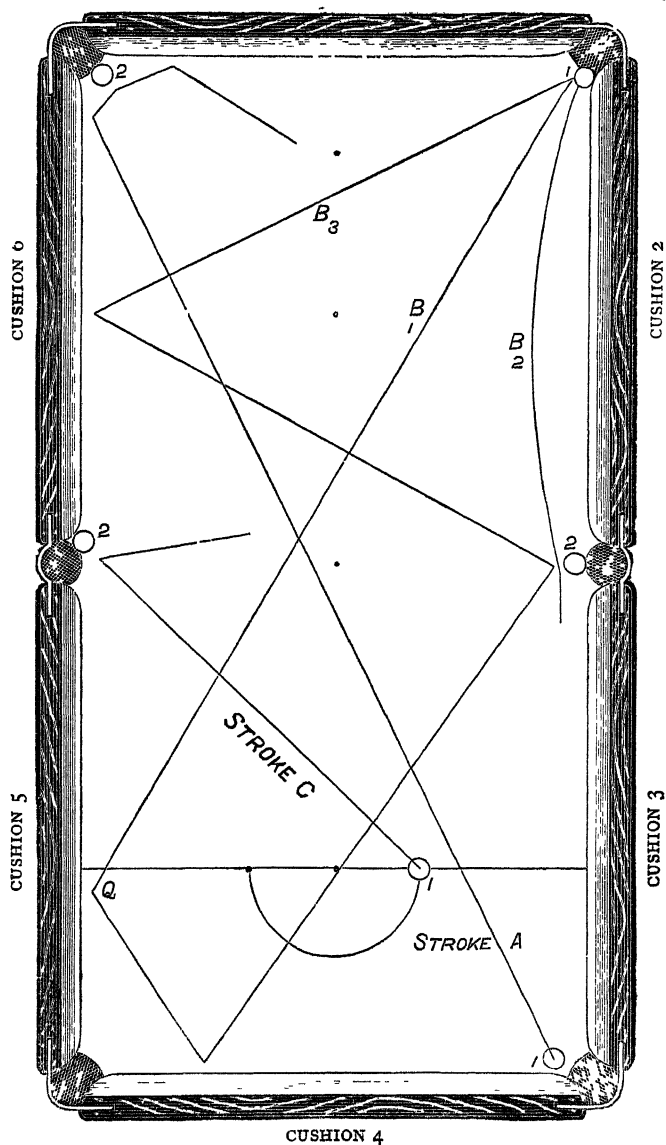


Fig 4

three methods of play in case ball 1 should be angled, ball 2 being in the jaws of the middle pocket. Fortunately such an occurrence is rare ; but I once saw it happen at pool, and the player—a very good one—played the stroke marked B₂ and brought it off. Experiment gives the best results with B₁ and the worst with B₃ ; but which of the three should be essayed depends on the exact position of ball 2 and the chances of making a loser. The point Q is about six inches below the baulk-line, but a few trials will show the exact place. B₂ is of the nature of a *massé*, and even if ball 1 strikes the cushion above the middle pocket, there is still a chance of success. Should ball 1 be angled for ball 2, the latter being in a corner



CUSHION 4
Diagram VII.

pocket, the *massé* stroke is the only chance ; in fact, there is a very old trick stroke, made when balls 1 and 3 are in the jaws of the corner pockets and ball 2 in the jaws of the middle, all on the same side ; by a similar species of *massé* ball 1 curves round and outside ball 2 and holes ball 3.

A propos of stroke A, there is a useful method of getting position at the top of the table, if ball 1 can be struck freely. If plenty of follow is used, and ball 2 is struck nearly full, the striker's ball will rebound towards the middle of the table and then spring forward towards the top cushion again. The stroke requires much freedom, and the explanation of it is to be found in Chapter VI., On Rotation.

Stroke c may be found useful at some time or another. The object ball is resting against the upper jaw of the middle pocket, in such a way that it is impossible to cut it in from baulk ; but with a kiss the stroke is absurdly easy. By playing from the end of the D with No. 1 strength, and hitting the red about three-quarters right, the kiss will send it into the pocket and leave ball 1 in the middle of the table.

The question of occasionally giving a miss may deserve a word, but, as a matter of fact, the opportunities of playing such a stroke with profit are very rare. To begin with, the penalty is a very heavy one, and can only be afforded by a player who has a most commanding lead and whose adversary cannot dare to follow suit. With a score of, say, nine to one, when the leading player has the game in hand, he may, if he please, sacrifice a ball in the hopes of getting a break afterwards ; but when the scores are nearly equal, it is clear that if it is worth A.'s while to give a miss, B. can hardly do better than follow his example.

The highest possible break at pyramids (unless the striker owes one or more balls) is, of course, fifteen ; this number has frequently been taken by fine players, but the chances of finding a full complement of balls on the table and of being in a position to take advantage of the opening are very small, always presupposing that the ability to clear the table exists. In the

quickest game I ever played, my adversary managed to take a ball after the opening stroke, and, gradually breaking up the pyramid, secured ten, and the last five fell to me in the next turn, so that we had but three innings between us, one of them being the break. A capital performance was once done at Cambridge by an undergraduate whose adversary broke and apparently left everything safe, however, eight balls disappeared, nearly all very difficult strokes, in which the player had to consider safety as well as the hazard. In his next turn he cleared the table by a series of similar shots, all, or nearly all, so difficult that once more safety was his main object. This was a very great feat, but the reader need hardly be reminded that at pyramids, as at billiards, the art to be cultivated is the art of leaving a series of easy strokes. I once saw a man who had just made a break of 30 or 40 at billiards turn round and say, 'What a good break! There wasn't a single easy stroke in it!' The real billiard-player would have described it as a series of well-made strokes, but as a *break*, never.

SHELL-OUT

This game is practically the same as pyramids, but more than two take part in it. A stake, so much a ball, is agreed upon. The balls are set up as at pyramids, but under no circumstances is a ball ever put up after a miss, or when a ball has been forced off the table, or when the white has run in. If any of these things has happened, a point is added to every one's score except the offender's, who thus pays the stake to the other players. The score is most conveniently kept on the slate, each ball counting one, except the last, which is generally reckoned as two, all penalties incurred off it are also double, but with the exaction of the penalty the game is at an end. There is no single pool, white always playing upon red. If a player plays out of turn, he has to pay all round; he can gain nothing if he takes a ball, but the ball is not put

up If he makes a foul when only one red ball is left and takes that ball, he cannot score, but the game is at an end. The rules for foul strokes are the same as at pyramids At the end of the game each player pays or receives the differences Thus, if the scores stand A. 9, B. 3, C. 4, A receives 6 from B and 5 from C., while C. receives 1 from B.

Everything that has been said about pyramids applies equally to shell-out, but as it is a game of all against all, safety is not so much an object as hazard-striking, it being clearly useless for A to leave B. safe so that C may profit by it. It may also be remembered that if, say, four are playing, the individual has practically a bet of three to one about each stroke. The game, in fact, is more for amusement than for scientific play, though naturally the scientific player will in the long run get more pleasure and profit out of it

POOL

Pool, the good old-fashioned following pool, is getting out of date. The more racy games of black pool and snooker have jostled it from its place in men's affections, so once more Cronos has been deposed, and Zeus reigns in his stead. As, however, no article on winning-hazard games would be complete without a detailed reference to it, if only because of its antiquity, I will treat it as still instinct with life and energy; and, indeed, as the parent of the more modern games, it deserves our respect. The principles of the game are quite simple.

Each player receives a ball by lot—any number up to twelve can play—and starts with three lives. The order of play is decided by the sequence of the colours on the marking-board, which correspond with the balls. White is placed on the billiard-spot and red plays the first stroke from the D; yellow plays on red, green on yellow and so on, the same order being kept throughout the game, unless an intermediate ball is dead (*i. e.* has lost all its lives), when the ball that precedes it becomes

the object ball, *e.g.* if red is dead, yellow plays on white, or if both red and yellow are dead, *green* plays on white. If a player clears the table—*i.e.* takes all the balls on it—his ball is spotted.

The most important part of the game is to hole the object ball. When this is done, its owner loses a life, and the striker continues his break by playing at the nearest ball, and thus the game proceeds till only one player or two are left. In the first event the survivor takes the whole pool, which is called a maiden pool if he has his three lives intact, in the second the two players play on till one kills the other, or till each has an equal number of lives, in which case the pool is divided. If, however, there are three balls on the table, say red with two lives, yellow with one life, and green with two lives, then if green holes yellow, he has a shot at red, though the number of their lives is equal. This is obviously fair, as he is in the middle of his break. Green, then, has this stroke called stroke or division, if he holes red, the pool is played out to an end—*i.e.* till both are one-lifers or till green kills red; but if green's stroke fails, the pool is divided at once. Each player pays the amount of his pool to the marker, this being generally three times the value of a life, though, if lives are only sixpence, the pool should be two shillings. The table-money, generally threepence a ball, and the same for each star, is taken out of the pool before it is given to the winner. A player who is unfortunate or unskilful enough to lose his three lives early can come into the game again by paying the amount of the pool a second time over. This is called starring, as a star is put against his colour on the marking-board, but he only receives the lowest number of lives shown on the board.

As the striker is compelled to play at a particular ball, he is allowed to have any ball or balls taken up (to be replaced after the balls have ceased rolling) which are nearer than the object ball and prevent him hitting either side of it, or which in any way interfere with his stroke (see Rules 20 and 21)¹ No star

¹ The numbers quoted are those of the Association Rules

is allowed when only two players are left in, but when more than eight are playing a second star is permitted. Sometimes the game is played with an unlimited number of stars, each costing the amount of the pool over and above the price of the last star—*e.g.* at three-shilling pool the first star costs three, the second six, and the third nine shillings, and so on (see Rules 8 and 9). The striker loses a life (Rule 13) if he holes his own ball, whether he takes the object ball or not, forces it off the table, misses, runs a coup; plays out of turn; hits a wrong ball first; or plays with the wrong ball, except when he is in hand, in which case there is no penalty. All penalties are paid to the owner of the proper object ball, however incurred. If a player wishes to have a ball up, he should not lift it himself, as such an act would be technically a foul stroke. Should a player be angled, and wish to play off the cushion, he may have any ball or balls taken up which interfere with his aim, but the old rules allowed him to move his ball just far enough to get his stroke, though he could not take a life by it.

Rule 28 says: 'Should a player be misinformed by the marker, he may play the stroke over again, but cannot take a life.' This seems hard, and is perhaps an instance of *summum jus, summa injuria*; but the moral for the player is that he must keep his attention fixed on the game and the marking-board. To attempt to replace the balls, and to allow the stroke to be played over again might give rise to much unpleasantness. By Rule 30, 'Should the striker miss the ball played at, no one is allowed to stop the ball, the striker having no option.' The striker's ball after missing the object ball may still hit others, and materially affect the subsequent progress of the game; hence a hard-and-fast law on the subject is necessary.

As it is to the survivor or survivors that the pool eventually comes, it is of paramount importance to cling to life. Many things combine to decide the striker whether to try for safety or for a hazard, or for both together—his own temperament and skill, the state of the score, and the position and skill of the

next player and his other opponents All hands are against every man, so that general rules are impossible, but 'When in doubt play safety' is a capital rule. Another useful maxim is, 'Play for safety with safety-players, play for hazards with hazard-strikers,' as the latter, if they play out boldly, are sure to sell the safety-player sooner or later—*i.e.* will leave his ball in a position of great danger. But if the next player is close to the cushion, one is justified in playing for a hazard when, under other conditions, safety would be the right game. Again, a bold style is right in a big pool of, say, eight or ten players, as the chances of being sold are greater. More boldness, too, in playing out for hazards may be shown by a player who is left in with, say, three lives, while the others have only one; but even then it is better to be cautious

It is generally good policy to star two, many things may happen before it is star's turn to play again, and he has the great advantage of playing from the D. A glance should also be taken at the position of the other balls, as the next player may have an easy stroke to play, and every life taken is in star's favour with a view to the pool. A deliberate miss or coup, so as to be enabled to star well, is not chivalrous, perhaps not fair, but there is nothing unsportsmanlike in playing a more open game with a view to starring. With an unlimited star the question is reduced to one of capital and temperament; but in any case starring is an expensive luxury, and the player who is not judicious may find in himself a parallel to F. C. Burnand's heroine of suicidal tendencies, of whom he wittily writes the epitaph, 'In memory of Itti Duffa, the ill-starred maid, who lost her one life in this pool.'

One must play for one's own hand, regardless of the other players, and undeterred by chaff or sneer from trying for a plant or cannon; but it is generally dangerous to play for a cannon unless very easy, as there is always a chance of the player's ball following the other into a pocket; but it is no more bad form to try for such a stroke than to pot the white at billiards, whether it is expedient or not, is another

question, which only the exigencies of the moment can decide

The marker is the proper person to measure distances when necessary, but the beginner should learn the right way to do so. One player puts his finger firmly on the striker's ball, while another gently slides the butt of his cue up to it, holding the other end between forefinger and thumb, thumb uppermost. The point of the cue is then lowered till the cue rests lightly on the top of the other ball, the forefinger being slid up till it just touches the ball. A similar process is gone through with the third ball, the striker's being held steady the while, and the question of which is the nearer is solved at once. Again, it is the marker's duty to tell the striker on which ball he has to play, and which ball plays next, the formula being, *e.g.* 'Green on yellow, player brown,' or, if brown is in hand, 'Green on yellow, player brown in hand,' and if the striker has to play on his player, the marker must inform him of the fact; as, however, the striker is the scapegoat even if he acts on wrong information, he should keep his attention fixed on the game.

The opening of a pool is more or less stereotyped, all the players endeavouring to lay themselves under the top cushion out of harm's way, the player being always in hand till white's turn comes round, thus the last player—brown, let us say, in a five-pool—has to steer himself round the other balls that are clustered at the head of the table, and find his way down to baulk, as white is nearly sure to be high up; in a big pool the last player may have some difficulty, and it is well to remember that, as he can have any ball or balls up that lie between him and the object ball, he can, by selecting a good spot from baulk, have one or two such obstacles removed. The orthodox opening shot for red, by the way, is to play full on to white from a corner of the D, just hard enough to find the cushion himself. Plenty of drag should be used and no side. Side and screw are of no value except for position, or for playing a slow stroke which is wanted to travel quickly off the cushion.

The late William Cook once made a pool record. 'Play-

ing in a twelve following pool at his own rooms (I quote the words of a fine amateur player who took part in the game), 'in 1881, he actually cleared the table, playing always of course on the nearest ball. He had taken 20 to 1 five or six times from spectators, and the excitement was intense when he performed this really phenomenal feat.' As pool is limited to 12, Cook, like Alexander, had no more worlds to conquer, but his hazard-striking and position must have been marvellous.

Doubles are of the utmost importance, and the strokes shown in the preceding diagrams should be noted. One may fairly play a middle-pocket double with extra strength if by so doing there is a chance of the double-double, though it is not strictly sound, and shows a certain diffidence as to one's accuracy. Plants are rare.

A propos of doubles, the following occurrence is probably without precedent, but the story is absolutely vouched for. Three amateurs were playing three-pool. Red opened by doubling white into the right-hand bottom pocket. Yellow avenged white by doing exactly the same to red, and white made matters even by treating yellow to a precisely identical shot. Strange to say, red with his second shot holed white just as before—four consecutive doubles into the same pocket—and, though yellow spoiled the average by only doubling red into the right-hand *middle* pocket, white made things all square and yellow disappeared into the original pocket. Thus six consecutive doubles were made, five of them into one pocket! What are the odds against such a performance?

As even in these enlightened days the confidence trick flourishes, it may be worth while to warn beginners against innocent strangers. If these win by sheer skill, there is nothing to be said against them, and the best thing is to put down one's cue; if they are sharps as well, they will probably hunt in couples, on the chance of one playing next to the other, when the first player, curiously enough, never quite gets safety and always leaves a ball over the pocket. I remember just such a pair, a good player and a duffer, turning up at

some rooms I used to frequent, and, though none of us were innocents, they played so cleverly into each other's hands, the apparent duffer making several slight mistakes at critical moments, that the good player had a pretty good time. Talking the matter over, we saw that we had been had, and, as we were rather a snug little *coterie*, arranged with the marker what was to be done if they reappeared. The pair had posed as absolute strangers and had come in separately, so we told the marker that if the duffer came in first he was to have a ball and we would try to warm him up, but on the good player's appearance he was to be refused a ball, while we, a fairly sturdy lot, would see the marker through any trouble. All came off splendidly. The duffer appeared first and lost two or three pools, and when the crack walked in he was at once confronted by the marker with 'I am very sorry, sir, but I can't give you a ball to-day.' We expected a row, but he took it like a lamb and decamped, and the duffer, after losing another pool or two, decamped also. One of our party saw them the same evening, hobnobbing together at the Criterion, so there can be no doubt that it was a put-up job. The following occurred to a friend of mine, a good billiard-player, a particularly good pyramid-player, and well able to look after himself. After a couple of games of billiards, on both of which he won a small bet, his opponent, a stranger and apparently a Jew, suggested 'just one game of pyramids.' 'What shall we play for?' said my friend. 'Three and one,' said the Semitic one, which means, as usually interpreted, a shilling a ball and three shillings on the game. My friend won by thirteen balls, but his opponent, after putting up his cue, offered him just four shillings and threepence, being at the rate of three *pence* a ball and one *shilling* a game! There was nothing to be done, but I wonder what the Jew would have claimed had he won by thirteen balls.

THREE-POOL

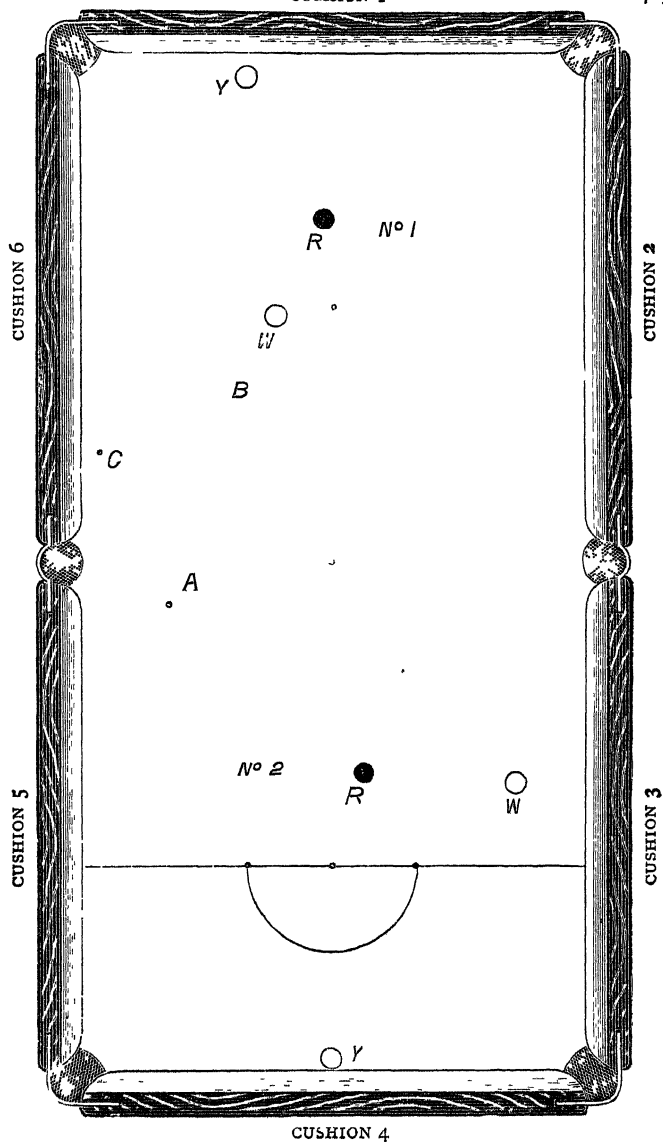
When four players only are left, and one of them is finally killed, the marker should be careful to call 'Three-pool.' Why this is so may not be apparent to the novice, and perhaps it will be cheaper for him to learn from a book than to pay for the information over the table. When four or more players are left in, the striker plays for a hazard, and, whether successful or not, he has no further anxieties beyond the safety of his own ball, but in three-pool a new element is introduced: he must consider where the object-ball will finally stop if his hazard fails, and the middle of the table is the very worst position for it. A moment's thought will show the reason. A., B., and C. are three players: B. plays on A., lays himself safe from C., and leaves A. in the middle of the table. C. having to play on B., is now, in most cases, in a great dilemma; he has no chance of taking B., and with A. in the middle of the table may find it very difficult to get safety after he has played. If he has a long shot from under the cushion, he will probably leave A. a fairly easy stroke, in which case B. may suffer also, so that B.'s own carelessness, or his indifference as to where A. was left, may deservedly recoil on his own head. The amount of consolation meted out to him for having been sold will be the cold comfort of 'You ought to have played three-pool;' in other words, 'You ought, while leaving your ball safe, to have also left A.'s ball in such a position as to make safety fairly possible for C.' Again, it is only self-defence to leave the object ball near a pocket, in case of a failure to put it in; especially is this advisable when it is very hard for the striker to get safety, for it is clearly to every player's advantage to have, if possible, a comrade in misfortune.

The general principle of three-pool may be more easily understood from Diagram VIII., which shows two cases in which the obvious stroke for ordinary pool would be quite wrong in

three-pool In each case red has to play on white, yellow being his player. In No. 1 red has a hazard in the middle pocket, but it is not particularly easy, and must be played slowly, so that if it fails white will very likely be thrown by the lower jaw of the pocket to about A, while red drops slowly down to B. Yellow has the poorest chance of escaping white next time, and, being extremely indifferent to what becomes of red, will probably sell him, as he deserves. If red plays the game he will dribble white down towards the left-hand bottom pocket, and be himself safe at C, when yellow will not be forced to run any risks. In stroke 2 it is tempting to play for the double into the middle pocket with strong right-hand side and screw, so as to get near the spot off three cushions, but as this would probably leave white in the middle of the table, and yellow would be in hopeless trouble, the right stroke is an attempted double into the *bottom* pocket, when left-hand side and screw will leave the striker safe, and yellow will have no difficulty in getting safe also, while, further, the striker will have the best chance in the subsequent finessing.

SINGLE POOL

Many of the more ordinary strokes required at this game have already been discussed; but, as single pool is a most scientific and interesting game *per se*, it deserves a few lines to itself. As the striker is always playing on his player, the problem of safety is quite different. Two general maxims should be writ large in the striker's mind: (1) Leave the balls as far apart as possible; (2) Never play for a middle pocket unless it is a certainty. The first of these requires no comment: a moment's thought will show the importance of the second, which applies equally to doubles and to direct shots, as a stroke for the middle is sure, if it fails, to leave the adversary's ball in the middle of the table, when he will either have a good chance of a hazard or no difficulty in getting safe.



CUSHION 4
Diagram VIII

Reverting to Diagram VIII., stroke 1, at ordinary pool red may, *cæteris paribus*, try to hole white in the middle pocket. The danger of this stroke for three-pool has already been shown; at single pool it is even more risky, as from A white would have an almost certain hazard with red at B. The same remarks apply to stroke 2.

For the opening stroke, again, it would be suicidal for red to drag slowly up to white: an endeavour should be made to double the white into one of the bottom pockets by a stab, for which object the white should be driven against the top cushion, about four inches to the right or left of the centre of it behind the spot, leaving the striker's ball as near the cushion as possible; but some players like to use a little direct side while playing for the same double, leaving their own ball under a side cushion.

Two strokes are shown in Diagram IX. illustrating the difference of play demanded by single pool. In stroke 1, at ordinary pool the striker would try to hole white in the top corner pocket; at single pool he should play a smart stab, being careful not to follow on, driving the object ball all round the table towards the bottom cushion. Stroke 2, known as the z shot, separates the balls well and should be played with some right side, white being cut very fine, so as to leave it high up the table. It would be an equally sound stroke to play for a double in the right-hand bottom pocket, but the reader is again warned that these and all other sample strokes should be tried over coolly in private, and not be essayed for the first time in the heat of actual conflict.

BLACK POOL

Considering the popularity of this game, it is really surprising that no regular and recognised code of laws exists. Some rules have been published, it is true, but there are so many deviations from them, almost every room having its own

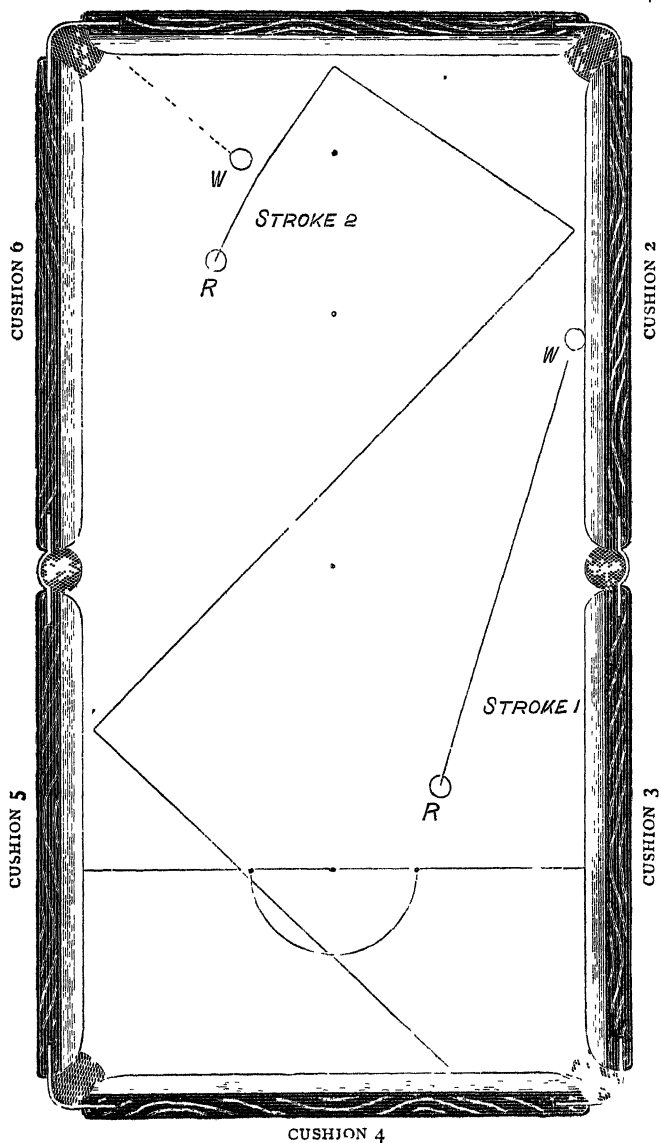


Diagram IX

bye-laws, that the present state of things is quite chaotic. Thus it is impossible to do more here than give directions for the game as it is generally played ; any one who is playing in a strange room should inquire what the customs of the room are

The special feature of the game is the introduction of the black ball, which may be described as public property, for every player who takes it is paid by all the others the amount of the stake agreed upon, and all penalties incurred when playing at it are also paid all round. It is spotted on the centre spot, if that is occupied, on the pyramid spot, if that is occupied, on the billiard spot, and if *all* are occupied, it is held up till one is vacated. Each player has an infinite number of lives, and cannot be killed, however often he is put down. Each life lost is paid for by a stake agreed upon. There is no subscribed pool. Each game lasts half an hour ; when time is up, directly after white has played the marker announces the last round, white having always the last stroke. Any number can play for whom balls can be found, but five players make the most interesting game. At the end of a round a new player can enter. His ball is spotted on the billiard spot, and he has to stand fire till his turn to play comes. Similarly, any one can retire by giving notice of his intention directly after he has played, but his ball remains on the table till his turn comes again. In fact, the spotting of the new comer's ball and the removal of a player's ball may be considered their first and last stroke respectively. Foul strokes are regulated by the rules of ordinary pool, but after a miss the striker's ball is left where it stops and is not removed from the table. A life is lost by playing with or at the wrong ball, or out of turn ; if any one plays at the black out of turn, he has to pay all round. The black ball is never taken up, and no coloured ball can be taken up (except during the first round) if it interferes with the striker. Baulk, as in all winning-hazard games, affords no protection. If the black ball is holed, it must be spotted at once, if the striker play before it is spotted, the stroke is foul.

The first round is played exactly as at ordinary pool, the balls being given out in the same way—white set on the billiard spot, and black on the centre spot. After white has played—that is, after the conclusion of the first round—red can play on any other player's ball.

By some rules he has to play on the nearest ball, by others the pool order is observed.

If he takes a life, he receives a single stake from the owner of the ball and must then play on the black.

By some rules he may take as many coloured lives as he likes before playing on the black. This cuts both ways, as the striker may have a better chance of getting position on black by taking several coloured balls first, but, on the contrary, he is spoiling his chance of a large break.

If the coloured ball is holed and the black also (*e.g.* by a cannon or plant), the black does not count, but is spotted at once and is the next ball to be played on.

Sometimes the black is allowed to count under these circumstances, and can be played on again, after it has been spotted, the theory being that, though black cannot be *played on* twice running, it may, under certain circumstances, be *taken* twice running.

If black is holed, the striker must play on a coloured ball, the rules of the room deciding which one, but in most rooms he is allowed his choice.

If he takes this life too, he must again play on black, taking coloured balls and blacks alternately till he breaks down, when the next player proceeds.

If the striker plays on black, and holes both black and a coloured ball, both are counted; but if a coloured ball goes down and black does not, the coloured ball does not count, and the break is at an end. If the striker holes the black and no other ball is left on the table, his ball is spotted.

In a game of this kind, where all are playing against all, to play for safety is mere waste of time, but when the next player

has an easy stroke waiting for him, with perhaps a good chance of black to follow, the striker should sacrifice his own game (unless he has a reasonable chance of scoring) to spoil the next player's ; *e.g.* if red has a difficult stroke, and yellow, who follows him, has a good chance of taking (say) brown, then red should knock brown away, as, if yellow makes his first hazard and then gets black, red will have to pay with the others. But as a general rule the striker must play for himself alone, and play not merely for the first hazard but for the black afterwards. At no time is caution so necessary as when the next striker is in hand and there is a ball behind the baulk-line which is likely to be holed. If the black is safe, no danger is to be feared, but if it is anywhere in the middle of the table, some self-sacrifice may be necessary, so that it behoves every player as his turn comes round to think what kind of a stroke the next man is likely to have.

Again, it is clearly useless to cower under a cushion ; no one is likely to play at a ball so placed, and its owner will have left his ball in a cramped position. Hence an open game should be played, with the black always in view, and the reflection that he whose ball is holed will have the advantage of playing from baulk. To push the matter further, a coup is often judicious, if such a course does not seem likely to sell the table ; a coup is often better play than a haphazard shot, which may cost one or more blacks in the end. As a new-comer's ball is spotted before white plays, it is no good entering if white has a promising break, the last arrival may indeed help him to get one, and in this case it is prudent to defer one's entry for another round. The player who leaves before the pool is over has to stand fire for a round and is responsible for any blacks that may be taken in the course of it.

No hazards are so valuable at black pool as those into the middle pockets, because of the position of the black. Practice consequently at this class of strokes is sure to be profitable.

BLACK AND PINK POOL

For science, changing vicissitudes, and general amusement, black pool is greatly improved by the addition of the pink ball. It is always spotted on the pyramid spot ; if that is occupied, on the billiard spot ; and failing that one, it goes to the centre spot, if unoccupied. If all are occupied, it is held up till one of the spots is free. The rules of black pool apply both to the black and pink balls. In some rooms, however, pink can be played on originally (after the first round), but under all rules blacks and pinks can be taken alternately, without the intervention of a hazard off a coloured ball. A double stake is generally payable on black and a single stake on pink, this being levied on all the players. The game is opened as at black pool ; neither black nor pink can ever be taken up if they interfere with the striker, nor any coloured ball, except in the first round. When a coloured ball has been taken, the striker must play on either pink or black.

In some rooms this is optional, and he may play on a coloured ball if he chooses.

If the striker holes a pink or a black, he cannot play on that ball till he has taken another life, but not necessarily a coloured ball, as he can go from black to pink and from pink to black as often as he makes a hazard. If he plays the first stroke of a break on a coloured ball and holes either black or pink by cannon or plant, the rule of black pool which provides for such a case is generally observed.

In some rooms, if *pink* goes down under these conditions, it is allowed to count even if the coloured ball is not holed. If both are holed, both count.

It is usually conceded that black cannot be *played upon* twice running, nor pink, but every room should have a hard-and-fast law to settle whether either or both can be *taken* twice running ; otherwise the following is a *crux*. No balls are left on the table

except pink, black, and the striker's ball. Pink is over the pocket ; the striker plays on black and 'plants' pink. If pink may not be taken again, the break is at an end, and the coloured ball must be spotted ; otherwise he may play on pink and black alternately as long as he can make a hazard.

The best break I ever heard of at this game was one coloured ball, followed by ten pinks and ten blacks, a pretty series of twenty-one hazards. A good way of collecting the stakes is to mark off with chalk on the top of the cushion a compartment for each player, he can then lay down his lives, on the *wooden* surface opposite his compartment, and the striker can readily collect the money when his break is over. This saves a great deal of trouble in collection. No special hints are needed for this game, as it is only a modification of black pool, but care is necessary to avoid leaving an easy hazard for the next player if black or pink is over a pocket. Especially is this necessary if the rule is that pink may be played on originally.

Another useful bye-law is that the striker may be required, before he plays, to declare on which ball he is playing ; if he declares to play on black, misses it, and hits pink, then, though legally entitled to hit pink, he must pay the full penalty for missing black. Such a law as this may save many disputes.

SNOOKER

Snooker—or, to give it its full title, Snooker's Pool—is a hybrid game, half pool and half pyramids. Any reasonable number of players, say five or six, may take part ; but it is best to play a single-handed game, or for two to play against two. As is the case with black pool, there are no accepted rules, the published code being of little use, so many are the deviations from it. The general method of play is here laid down, so that those who are unfamiliar with the game may make its acquaintance.

The pyramid balls are set up in the usual way, and the striker always uses the white ball. The black ball is set on the billiard spot, the pink on the centre spot. Blue is placed just below the apex-ball of the pyramid, brown on the centre spot of the **D**, with yellow and green on the right and left corner spots.

If pink and black are not introduced, blue is put on the billiard spot, brown on the centre spot, green at the apex of the triangle, and yellow on the centre spot of the **D**. The positions of pink and black are sometimes reversed.

A red ball counts one, yellow two, green three, brown four, blue five, pink six, and black seven. The score, if two persons are playing or sides are formed, may be marked on the board as at billiards.

A red ball must be taken before a coloured ball can be played at; if the striker, playing on a red, holes it, and takes a coloured ball also, the latter does not count and is spotted. If, playing on red, he fails to hole it, but holes a coloured ball, the value of the latter is scored to the other side.

In each of these cases the striker is allowed in some rooms to score the coloured ball, the rule given is the generally accepted one.

After taking a red, the striker must play on one of the coloured balls. If he holes one of them, any other balls that go down by the same stroke count to him. All coloured balls which are holed must be spotted immediately; if the striker plays before all are spotted, the stroke is foul. No red ball is ever put up. The rules for foul strokes are the same as those of ordinary pool, and penalties are incurred in the same way, but the amount of the penalty is the value of the ball played at—*i.e.* to miss a red counts one, to miss the yellow two, and so forth. If the striker, playing at red, hits a coloured ball, the penalty is the value of the ball struck.

The rule is not always as severe as this. In many rooms, to miss red involves a penalty of one, to miss yellow of two, and so on, regardless of the value of any ball that may be struck afterwards.

If the striker gives a miss, the ball is left where it finally stops. If the striker is by law obliged to play on a red ball or on a coloured ball, but from the position of his own ball is unable to do so directly, he is said to be snookered ; he must then make a *bona-fide* shot at the proper ball off the cushion, the penalty if he misses being the minimum penalty e.g. if he is bound to hit a red ball, the penalty is only one ; if a coloured ball, two—the value of yellow.

In some rooms, the striker is bound, when snookered, to play a *bona-fide* shot as described, and if he hits a coloured ball when playing on red is mulcted in the value of that ball. In others, if he has to play on a coloured ball and is snookered for them all, he has to name the ball he intends to play on ; if he misses all the coloured balls, or hits one of a smaller value, he is debited with the value of the one he plays at, if he hits a more valuable one, he is fined the value of it ; but as it is hard to define what a *bona-fide* shot is, these regulations lead to many disputes. A good rule is to allow the striker to give a miss, the penalty being the lowest that can be exacted, but he must not thereby snooker the next player. If he *does* snooker him, the stroke must be played over again, till the next player has a clear shot at the right ball.

When all the red balls have been holed, the others must be taken in proper pool order—first yellow, then green, and so on. When holed they are not put up. The striker, when snookered for his proper object ball, must play a *bona-fide* shot for it, being fined its value if he misses it.

Here again there are variations. In some rooms he may give a miss, leaving the next player in a position from which he can play on the proper ball, and being fined the value of the object ball ; or he may (sometimes *must*) play at that ball, and if he hits another he is fined the value of it, which at this period of the game is always greater than that of the object ball.

When only white and black are on the table, white always plays on black. If white misses black, or goes in off it, or forces it off the table, or goes off the table himself, the game is at an end.

In some rooms the game proceeds till black is actually holed.

Of course the main object of the good player is to get behind a ball of great price when he has taken a red, green and yellow being of no great value, though their capture may lead on to higher game. As a rule, it is wasted time to hole a red when there is no chance of a break to follow, as by this means one of the preliminaries to a break is destroyed; but at the same time the opponent's chance is diminished, so that this general principle may be laid down—that the player who is leading, or receiving points, should get rid of the red balls, so as to reduce his opponent's chance of making a big score; but he who is giving points, or is behind in the game, should abstain from taking a red ball unless he has a fair chance of getting a coloured one afterwards. He should play rigid safety, leaving the opponent long shots, from under a cushion if possible. Safety is indeed one of the beauties of the game, misses and coups being often good play, but when all the red balls have been holed, the utmost accuracy of strength and direction is called into play, so as to snooker the adversary, whose efforts to hit the proper ball may enable the other to retrieve an apparently lost game. It must never be forgotten that, as a break may run up to thirty or forty, or even more, each point representing money, a single incautious stroke may cost the loss of the game, and that care and thought are consequently of enormous importance.

The drawback to the game is the large part played in it by luck. There are so many balls on the table that really excellent strokes are incessantly being spoilt by a combination of kisses against which it is impossible to provide. To this both sides are equally liable, but in a game of skill the element of luck ought not to be too prominent, and it is owing to the preponderance of luck in snooker that the game is, as a game of skill, inferior to black pool.

THE MARKER

As there are stakes depending on all these games, apart from other general reasons, good marking is all but an absolute necessity, but good marking is not compatible with the many services that some players, and even some spectators, think they have a right to demand from the marker. He is called upon to ring the bell, to give orders to the waiter, hand the matches and so forth, at a time when his whole attention should be concentrated on the game and the wants of the striker. Marking requires great care of itself, but when there are rests to be handed, balls to be spotted, foul strokes to be watched, and so forth, it is positive discourtesy on the part of spectators to distract his attention. The marker is the servant of the players—and of the players alone—as long as a game of any kind is proceeding, and he ought to be regarded and treated as such. Under the best conditions, however, players should keep their eye on the marking-board, so that any error may be corrected *immediately*. delay only leads to dispute. At pyramids the score on the board *plus* the number of balls on the table must always make 15, so that a mistake can be detected at once.

The marker himself may be reminded that distinct calling is as essential as accurate marking. At pool each life lost must be audibly announced, and the chance of starrng offered to the player when it occurs. He should never neglect to remind the striker that he is on his player, or that his player is in hand, or, at the proper time, that it is three-pool or single pool, as on all these occasions a different style of play is required. But, once more, players should also be alive to their own interests, and watch these points for themselves. The rests, long cues, spider, &c, should be handed to the striker when asked for, and not laid on the table, as, on the principle of *qui facit per alium facit per se*, the striker is constructively liable for any foul made by the marker when he puts these implements

on the table. They should be always ready to his hand, but he should never *offer* them to a player ; it is often a distinct hint as to what the right game is when the marker is seen to get the rest ready or move towards the half-butt. It is his duty to be attentive but not officious.

COUNTRY-HOUSE GAMES

I now pass on to a class of games in which ladies can take part, and which provide plenty of amusement for those who do not care for a more serious game. Not but that cork pool and skittle pool may not be made highly scientific, but when ladies take a cue, such games are generally regarded as a pleasant recreation *pour passer le temps*, or as an excuse for a mild bet.

SELLING POOL

This is an eminently simple game, in which any number can take part. There are no lives, no pool, and no end, till the players are tired. Any one who chooses to leave can do so by giving notice, and taking his ball off the table when his turn comes round next. A small stake is agreed upon, and it is lawful to play on any ball, but no ball can be taken up. There is of course no safety and no star, but the usual rules of pool govern the game in other respects. To make the game go, however, it is well to have plenty of threepenny bits, sixpences, or shillings ready, according to the stake, as giving change is always a trouble, and cash down is necessarily the rule.

CORK POOL

This is another amusing game, which admits of any amount of skill and of any reasonable number of players. Two balls are used, white always playing upon red. The cork is put on the centre spot (sometimes on the pyramid spot), and on the cork the pool is placed. The object is to cannon from red on

to the cork. Sometimes it is obligatory that the cannon be made off a cushion. Each player in turn—the order is decided by giving out the pool balls—plays from where white stops, the first playing from baulk, as is also the case if the white goes in. Each player has only one stroke. If he cannons on to the cork and knocks it over—it is not enough merely to shake it—he takes the pool, which is then renewed. If he misses the red, holes the red or his own ball (even after hitting the cork, so that white must never be stopped), or cannons without first hitting a cushion (if this is the rule of the room), or plays out of turn, he has to put the amount of his original stake on the cork, in addition to what is already there. Sometimes he is only fined for an illegitimate cannon, but in this class of game the more forfeits that can be invented the better.

Not a bad variety of the game is to make the red hit the cork, a sort of winning hazard, any other way of knocking it over carrying a penalty, or this may be further restricted by insisting that the red must hit at least one cushion before it overthrows the cork.

I used to play another excellent and really amusing variation of this, which we dignified by the name of 'bumble-puppy.' A ring about three inches in diameter was drawn round the cork with chalk. The pool was put as usual on the cork, and each player who failed to hit the cork over—we used to play the winning-hazard game—was fined a penny, which was added to the pool, and when the cork was hit the striker secured only as many coins as fell outside the ring, those that were more than half outside counting as over. The fun of this was that sometimes there would be five or six shillings in copper and silver on the cork, and only a few meagre coppers would fall to the successful striker, all that was left in the ring being put back on the cork and a fresh stake added by each player. I can strongly recommend this form of the game, as it is full of incident and amusement.

NEAREST BALL POOL

This may best come under the category of country-house games, though it may be played with lives and a star and be treated as seriously as ordinary pool, the rules of which apply throughout. The striker is bound to play on the nearest ball, whatever the colour, under the penalty of losing a life, but there is no particular science in the game beyond that required in ordinary pool, except as far as spoiling an easy stroke for the next player is concerned.

SKITTLE POOL

This is another game admirably suited for after-dinner amusement in a country house, and one in which ladies can take part. The arrangement of the skittles on the table is rather elaborate, and can best be understood from Diagram X. Ten white and two black skittles, each four inches long, are used. A and E are on an imaginary line drawn through the pyramid spot parallel to the ends of the table. D and H are nine inches above the baulk-line. The distance between A and D and between E and H is divided into three equal parts, B, C, F, and G are at the points of division. All these eight points are four inches, one skittle's length, from the cushion. Another white skittle is on the billiard spot, and the tenth at I, four inches from the right-hand baulk-spot. When black skittles are used (they are sometimes left out), one is placed at X, four inches from the left-hand baulk-spot, and the other at Y, half-way between G and the cushion. The red ball is spotted half-way between the billiard-spot, K, and the cushion, white and spot-white on the right and left baulk-spots respectively. Each white skittle has a particular value, denoted by the figures in the margin; a penalty is attached, as will be shown, to knocking down either of the black skittles. The position of the skittles, when once found, should be marked with discs of white paper,

on which the value of the skittle may be shown. The object of the game is to make cannons with one of the white balls off the red or the other whites on to the skittles ; when such a cannon is made, the value of the skittle or skittles knocked over is scored to the player. The rules are as follow:—

I The game is played 31 up, each player having one stroke alternately, the order of rotation being decided by giving out coloured balls or numbers.

II. Any number can play in a pool, and in all cases the following order is to be observed, viz. : No. 1 plays out of baulk with either the spot or white ball from its respective spot, and he and the following players must always hit a ball (even if it touches another) with his own before striking a pin, or he cannot score. No. 2 plays with the remaining ball from its spot in baulk, and at either of the other balls, except when the one in baulk has been touched or moved, in which case he and the following players can play at any ball they please during the game

III Any pin or pins knocked down by a player must be replaced before the next one takes his turn

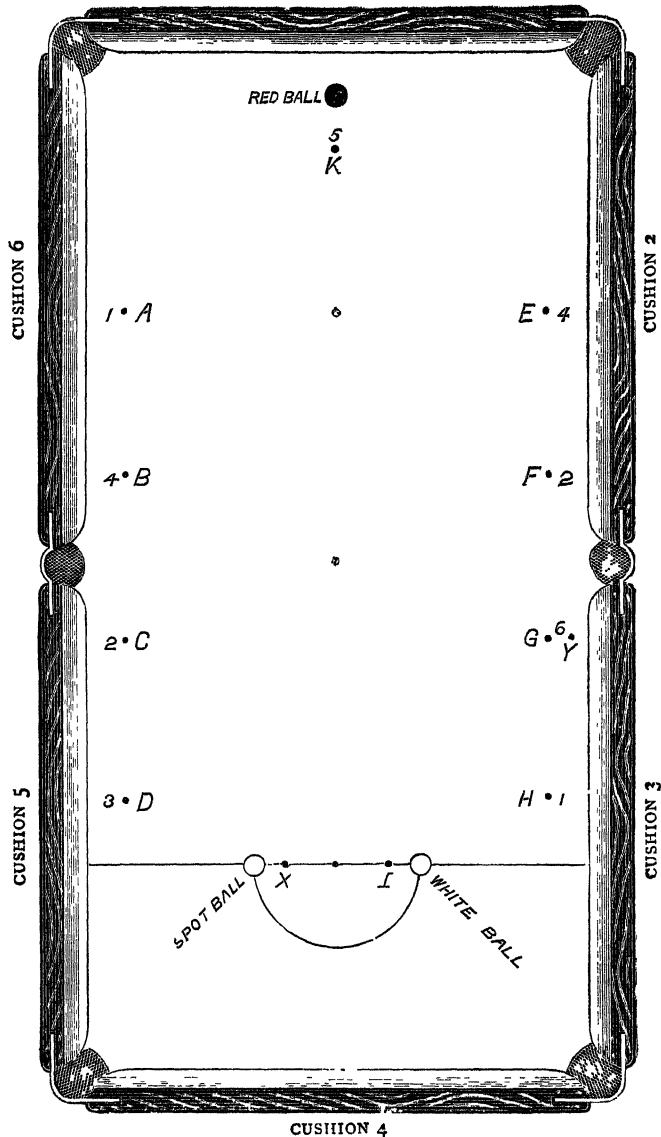
IV. Any ball occupying the spot of a fallen pin must be placed on its proper spot, and the pin also replaced.

V. Should any ball stop on either of the spots of the other balls, each must be placed on its proper spot

VI. Any player who knocks down a black pin (after making his stroke) with a ball, cue, sleeve, or in any other way, is dead (*i.e.* is out), but can star any number of times by signifying the same before the next player has struck, but he comes in without any points he has previously made. The purchase of a star to be the same amount as the pool.

VII. Should a player stop a ball or alter its direction, he shall be considered dead, but may star any number of times

VIII. Any pin is to be considered down if it has entirely left the spot it occupied, or when leaning against a ball, cushion, or another pin.



CUSHION 4

Diagram X

IX. Any one playing out of turn cannot score, and the one who should have played continues, without replacing the balls ; but the former has a right to play in his proper turn, if he is not dead by knocking down a black pin.

X Foul strokes are made as follows, viz. : by pushing a ball instead of striking it ; by knocking down a white pin without striking a ball first, or before the balls have ceased running ; by playing out of turn, or when all the pins are not in their places, or when the three balls are not on the table Running in or jumping off the table is not foul

XI. If (by mistake) the black and white pins are wrongly placed, the white scores and the black counts as dead if knocked down ; but the pins must then be replaced in their proper places

XII Should the three balls be covered by the pins, so as to prevent their being played at, the red ball can be spotted ; and then, if they are again covered, the spot ball can be spotted.

XIII. Any one, not being present at the commencement of the pool, has the right to join in it, provided that no player has had more than one stroke, and that no one has starred

XIV. Baulk affords no protection.

The usual way of playing this game is to agree that the pool goes to the player who first makes exactly thirty-one, neither more nor less . if he exceeds that number he is dead, unless he likes to star, the number of stars being unlimited Another method is to let the player who gets beyond thirty-one score backwards . *e.g* if his score stands at thirty-four, he can win the pool by scoring three. Under either system the other players endeavour so to leave the balls as to make it difficult or impossible for him to knock down the skittle which will give him the desired number The game may, however, be played with a sealed handicap, each player receiving a numbered counter at the beginning of a game, which he keeps secret but adds to his score. Thus a player whose counter was numbered six would produce it when his score reached

twenty-five, and would claim the pool, part of the game then is to guess the handicaps of the other players, by observing which skittles each is trying to knock over when within range of thirty-one. Thus, if a player whose score on the board was twenty-four were seen to be incessantly playing for one of the skittles at either B or E, counting four, his handicap number would probably be three, and so on. This innovation seems to have come from the Italian way of playing skittle pool, which is very popular in Italy and Greece, and indeed in all the Levant. Directions for this game may be found in Dufton's 'Practical Billiards.'

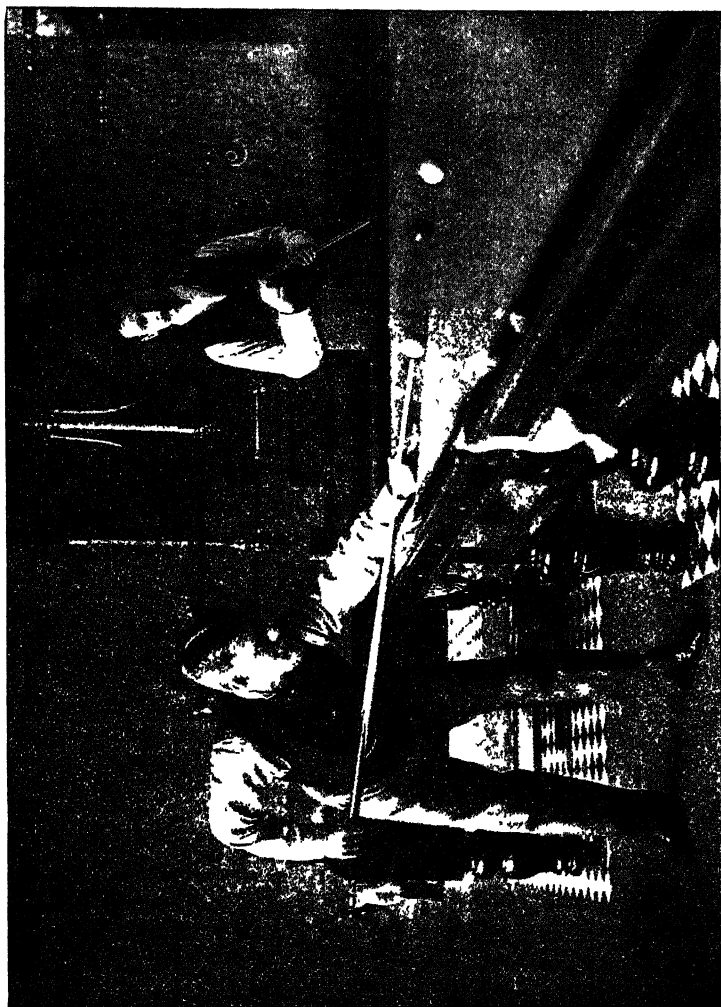
The game may also be played without the black skittles, but there is less fun and excitement, as their presence adds considerably to its vicissitudes.

CHAPTER XIV

MISCELLANEOUS NOTES

BEFORE finishing this book it is desirable to mention a few matters connected with billiards which have not been dealt with in former chapters, though some of them may have been more than once introduced. To begin with, the question is often debated whether in the interest of the game a stake is desirable. Undoubtedly, some advantages are gained when money, however little, is played for, the rules are more strictly obeyed, and the game is treated as serious. On the other hand, there are drawbacks: certain players, often those most anxious to bet, cannot afford to lose, and the miserable result is that the pleasure of the game is sacrificed to money. When played on proper lines, no stimulant beyond the honour of winning and the pleasure of making meritorious breaks is needed for players who are devoted to billiards and have attained certain excellence. In most clubs far fewer games are played of late years for even the small stake of a shilling or half a crown than was the case in the early seventies, but a little excitement is supplied by an occasional handicap. From want of experience, however, the framers often make serious mistakes, which deter persons from entering, and these are perhaps less in estimating the start which should be allowed than in general principles. Hence, with the view of helping framers, a few remarks are offered.

A handicap, to be satisfactory, should be on the American principle: each player should in turn play with every person who has entered, and he who has most games to his credit is the winner. It follows that too many entries should not be



A winning game

allowed, nor, if possible, should there be too great a difference in the class of players. It is better to have more than one handicap than to try to bring together men between whom there is great difference of play. As a general rule, it is probably safe to say that no two men should play in the same handicap when one can give the other much more than a third of the game. In a short game—and those of most amateur handicaps are from 100 to 250 points—more than one-third of the game is so long a start that chance plays too important a part. When there are many competitors, it might be desirable to have one or more handicaps subordinate to the final one, played, if preferred, on the English system, in which the loss of one game disqualifies for further competition, but the final, amongst, say, the best six players, should if possible be arranged on the American plan. As a guide to handicapping, the following rule may be useful. The question is, if A. can give B. twenty in a hundred, and B. can give C. a like number of points, how many can A. give C.? Add the points, and from the result deduct their product divided by the length of the game. Thus, in the supposed case .

$$20 + 20 - \frac{20 \times 20}{100} = 40 - 4 = 36,$$

or A. can give C. 36 points.

Another sort of handicap is sometimes substituted for the ordinary and uninteresting four game when it is wished that more than two players should take part. The method followed is to agree about the points and then string or toss for position—*i.e.* to determine who shall commence and the sequence of play. Whoever first scores the agreed number of points wins the game and takes the stakes. It has this advantage over the four game that excessive safety play is useless or worse, and that each competitor does his best to score. The luck is to follow a player who leaves easy openings, but, as no one plays specially for safety, a good player is as likely to leave an easy stroke as a bad one.

A few words may be permitted on billiards as a game for ladies. With their superior delicacy of touch and at least

equality in all other respects, save perhaps in brute force, there would seem to be no reason why they should not greatly excel at the game. As a fact some, a very few, do play almost as well as good club players ; they can make from twenty to forty points in a break, and, this being so, work is all that is required to raise their standard. The game is a healthy one, calling into play not merely the muscles but the mind ; and, as to its capabilities for showing a handsome figure to advantage, Mr. Davis's illustrations are sufficiently eloquent

Some readers may perhaps regret the absence of a chapter on the French and American game. To them we would urge that a game so beautiful, so scientific, and capable of such development, cannot be satisfactorily treated in short space ; and, therefore, it has been thought better simply to refer inquirers to M. Vignaux's book and to 'Modern Billiards,' the American text-book, published by the Brunswick-Balke-Collender Co., New York. Comparison between the English and French games is scarcely profitable ; they differ widely, and each has its advantages. Conspicuous amongst these in favour of the foreign game is the small size of the table which may be set up in ordinary rooms. It is cheaper and more easily lighted than that used in the English game, and, although hazards are eliminated and much interest is thereby lost, the cannon game can be brought on the smaller table to a perfection of which we scarcely even dream.

A matter which closely concerns the well-being of the game must now be considered, and that is the behaviour of players and spectators ; in other words, the *etiquette* of the room. Throughout this book, in one part or another, the importance of maintaining order and the impossibility of preserving a high class of play when interruption is permitted have been clearly set forth. The orderly proceedings in professional play, during which neither player smokes nor interrupts the other, and spectators are generally courteous, silent, and impartial, contrast, we regret to say, with the ordinary behaviour of amateurs in a club billiard-room. Here, in general, players have



A LADIES' BATTLE

5/19/12

to submit to all manner of interruption, the result mainly of ignorance and inadvertence. Consequently, the great majority play day after day, year after year, and scarcely improve, whilst the few who get the length of thinking out a break and working it out on the table are driven to play where they are less liable to disturbance.

In a billiard-room the players for the time being should be considered supreme, table, light, fire, marker, are theirs for the time, and a little ordinary consideration will show any gentleman that he should avoid interference with them during a game. Yet, how common it is for persons to bounce up to the door, open it without waiting for the stroke, march gaily along towards a seat irrespective of whether a stroke is in progress or not, and then, as likely as not, commence an animated conversation in a loud tone of voice with another spectator, or in default even with the non-player. If conversation fails, they have no scruple in lighting a lamp or in poking the fire and making a glare and heat which is unbearable to the players. The opponent, too, is often an offender in the matter of talking. No sooner has he missed a stroke than he commences conversation, failing to see that, if his adversary is more polite, he enjoys absolute quiet during his break, whilst the other has to play under disturbing influences, a proceeding which is not merely discourteous, but unfair. Then, again, a running commentary is often kept up during play, the remarks for the most part being absolutely foolish. A spectator who listens to them cannot fail to notice their grotesqueness, and, if they could be fully reproduced, the offenders themselves would scarcely credit that they could have acted such a part. Sometimes a player volunteers on every occasion explanation of his failure to score, at other times he passionately addresses the balls, adjuring them to stop or come on; he seems to think he gains a reputation for generosity when he praises his adversary's efforts by shouting 'good stroke' when satisfied that the hazard or cannon has just been missed, and it is entertaining to watch his change of tone and countenance

should some unforeseen score be made His nervous contortions when a ball is approaching a pocket or likely to make a cannon are often remarkable , head, hands, legs and feet, all coming into play, and all impressed to indicate his sensations, which, to judge from the display, must often be unpleasant

Smoking, too, requires regulation Matches should not be lighted on the stroke, nor should they be extinguished by being waved about , cues, umbrellas, or sticks, should be kept perfectly still ; in fact, every care should be taken to avoid distracting the player's attention There are many drawbacks to the game from players smoking , with every care, ashes and tobacco fall on the cloth, the wood-work of the cushions is blistered and disfigured because the ends of lighted cigars are carelessly laid on it, and the striker is often hampered by clouds of smoke poured over the table by his adversary in the line of sight. These may be reduced to a minimum by the exercise of a little consideration, and suitable metal trays should be provided on mantelpiece or side tables on which lighted cigars may be placed whilst the player is at the table. Another not uncommon but most offensive breach of etiquette is for a spectator to offer either player advice ; it often happens that they see what a player has overlooked, but they should resist the temptation to advertise their smartness, and recollect that the struggle ought to be left entirely to the opponents, who are entitled to a fair field and no favour These are the main faults which are of common occurrence . a little care and self-restraint will deter men from offending, and gain for them an enviable character for consideration of others and good feeling ; whereas indulgence in them will sooner or later cause transgressors to be considered as the pests of the room and to be more or less avoided. It is true that endeavour has been made in existing rules to control the behaviour both of players and of spectators, and it is possible that some further steps in this way may be taken ; but much must be left to the good feeling of gentlemen, which will not fail when they realise the value of a room in which good order

is kept ; and the remarks here made are offered in the hope that they may contribute to the desired result

With reference to the disputed question which was discussed in Chapter VI. and has incidentally appeared elsewhere, whether side can be communicated by one ball to another, there is a stroke which will repay study. Place the red and another ball on the baulk-line about a foot apart within the D. From the right-hand side of the table play a free stab on the red with strong right side, hitting it almost full but sufficiently on the left to just send it out of baulk. If properly played, both balls will be left in baulk. The white going into baulk shows that the red was struck on its left, and therefore must have gone out of baulk, whereas its return to baulk would appear to be due to communicated side. It is instructive to play this stroke first with one side and then with the other, and to observe the difference of result.

The practice of strokes as recommended throughout this manual may occasionally be varied by trying breaks from some well-defined position of the balls. Place a ball over each middle pocket for easy losing hazards and play the break from hand. After each break record the score, and after five or ten trials take the average. Anyone who can usually score 100 points in six innings is more than able to hold his own against good club form. The task is not so easy as it appears, as a few trials will show. The gradual rise of this average is a good measure of improvement. But too much time should not be spent in this way, for the practice of strokes is far more profitable, specially if the maxim 'Over the easiest strokes bestow the greatest pains' be always remembered. Work at easy strokes till they can be so played as to leave another easy one to follow, no practice is more remunerative.

Intimately connected with the interests of billiards are the duties of referees and markers. In important matches three persons are employed besides the players—the referee, the marker, and a boy to hand the balls and rests, in ordinary games all the duties fall on the marker. It is by no means an

easy matter to be a good referee, men are often selected more because they happen to be connected with a sporting newspaper than from any personal aptitude for the position. The qualities required form a combination difficult to be obtained. The referee should possess a strictly judicial turn of mind, perfect sight, developed accuracy of observation, great calmness, rapidity of judgment, perfect and fearless honesty; in addition to knowledge of the game, intimate acquaintance with the rules, and correct appreciation of the duties he may have to perform. Failure in any one of these qualifications may result in erroneous decisions, but perhaps the last-mentioned is the one which is most liable to be misunderstood. As a rule, the referee should not interfere unless appealed to, it should be fully realised by him that he can make no law or rule, and has for the time being no concern with the justice or injustice of the code, his duty is simply to say whether a rule has or has not been broken, and to declare the penalty. His personal opinion as to whether a stroke should be fair or foul is of no moment, all he has to deal with are matters of fact and the application of acknowledged rules.

The marker is a man for whom we have much sympathy; his duties are many and trying, sometimes almost beyond human endurance. As a class, markers are civil, well-behaved, and otherwise probably neither better nor worse than their fellow-men. When asked for advice or instruction, they give it cheerfully to the best of their ability, and in respect to play they may be said to lie between amateurs and professionals. They have occasionally a good deal to put up with, and their services are often unjustifiably requisitioned; attention is invited to Mr Ford's remarks (p 426), which, though made with reference to pool, are in most respects applicable to billiards. And when late at night or in close rooms markers are occasionally drowsy, or make a mistake, let players endeavour to realise the monotony of their lives. From their arrival in the room before noon till their departure at, perhaps, three in the morning, think of their average experience! The table has to be got ready, the room dusted and preparation made

for visitors. These appear at first fitfully—the young, who are not good enough for the serious business of the day, and the old, who are losing their game, meeting together, followed later by the regular *habitués*, who play billiards or pool as may be. Conversation is carried on as if the marker were both deaf and dumb, a mere machine for returning the ball and handing the rest. There is an admirable essay on this aspect of the marker in ‘The Billiard Book,’ by Captain Crawley, written by the author of ‘Lost Sir Massingberd,’ in which it is justly pointed out that the marker moralises and is ‘daily the dumb witness of innumerable frauds’ He is made to say, ‘I know the real skill of every player to a hair, and how much he conceals of it.’ I know the characters of nine-tenths of the men who enter the room, and very indifferent they are—‘the man who plays for a stroke only when it is a certainty, preferring his own safety to his enemy’s danger ; the hard-hitter, from whom no player is secure ; the man who is always calling his own strokes flukes ; the man who is always calling other people’s by that derogatory name ; and the poor fellow who is for ever under the cushion. My world, which is not a small one, is mapped out for me, with all its different species of men, upon this table ; for I stand apart, and mark many things beside the score’

Then think of the marker being obliged to constantly watch the performances of those who take from half to three-quarters of an hour to play a game of a hundred, the same bad form exhibited game after game, by men who for one reason or another never improve , and judge leniently of slight lapses of attention

It is expedient once more to emphasise the point that whilst a game is in progress the marker’s services should be considered as wholly devoted to the score and the players , no spectator should speak to him or attract his attention, and markers ought to be instructed, in case of breaches of this rule, to point out respectfully that they are prohibited from entering into conversation during a game The writer has often seen spectators, and occasionally opponents, most un-

warrantably engage a marker in conversation when they failed to get anyone else to talk to, thereby distracting his attention from the game to which it should be entirely devoted.

And now, as a last word, it is proper to explain that, though endeavour has been made in the preceding pages to put amateurs in the way of improving their game and of understanding its general principles, yet it is not for a moment advocated that young men should devote to billiards the time which might be more profitably employed in serious work. Except for professional players and a very few specially circumstanced enthusiasts, it is, after all, but a game and relaxation. Indulgence in it should, therefore, be kept within strict limits ; but, so regulated, it will be found generally beneficial to mind and body. These restrictions, it is evident, must almost to a certainty prevent amateur form from ever seriously approaching that of professional players, and one is warranted on meeting a youngster whose knowledge of the game and handling of the balls have reached professional form in concluding that his skill is evidence of a misspent youth. Still, there is a vast difference, which may reasonably be lessened, between such perfection and the average amateur performance ; and it is hoped that this volume may contribute to so desirable a result

INDEX

ABE

- ABERDOVEY slates, 81
 Aiken, T, 55, defeats T Rae
 for championship of Scotland
 and defeats Stevenson, 58,
 beats Roberts, 59, 60, in
 1905-6 tournament, 61, 62,
 100
 Albert Club, 48
 Albo-carbon light, 74, 75
 American handicaps, 40, 43,
 tournament, 41, 60, 434
 Angle, half-ball or natural,
 109-111, 131-132, of devia-
 tion, 138, of incidence and
 reflexion, 147-148
 Aquarium *See* Royal Aquarium
 Argyll Hall, 57
 Association, Billiard *See* Bil-
 liard Association
 Attitude, 115
 BALLS, billiard, 94-100; treat-
 ment of, 95-96; weight, 95, ,
 gauge, 97; tests of, 98, cry-
 stalate, 58, 100, bonzoline,
 99-100, cast-steel, 100;
 dummy, 109, definition of,
 113, motion, &c, and divi-
 sion of, 138-149, impact of,
 172-176, rotation of, 197-
 222; surface of, 201, friction
 of, on cloth, 201, transmitted
 side, 202, 441, different
 qualities of ivory and bonzo-
 line, 268-269, light, 324
 Baulcy, M, 6, 7, 9

BIL

- Basket pool, 109, 255-256
 Bateman, plays Harveison, 58,
 plays in tournament, 60, 62
 Baulk, meaning of the term,
 113, doubles in, 158, play-
 ing for safety in, 286; double,
 292
 'Baynard Castle,' 43
 Bedford, M, 9
Bell's Life, 19, quoted, 20; 21
 Bennett, Alfred, in handicaps,
 36, 38, 40, 41, 47, death, 38
 Bennett, Fred, 36, 38
 Bennett, John, 36, 38
 Bennett, Joseph, 4, his manual,
 4, in a four-handed match
 with John Roberts, sen, 26,
 29; beats Roberts, jun, and
 beaten by him, 34, 35, 36, 40,
 41, 43, 44, beaten by Roberts,
 jun, 50, beats Cook for
 championship, 46; defeats
 Taylor for championship, 47,
 Shorter forfeits for champion-
 ship, 47, introduction of
 angle for private practice,
 132, 268, 372; death of, 54
 Bentinck Club, 24, 27
 Billiard Association of Great
 Britain and Ireland, 55,
 championship, 56, standard
 tables, 78, 79, 364; rules of,
 376; revision required, 377,
 examination of—rules, 378-
 384, examination of—rules
 of pyramids, 388

BILL

- 'Billiard Book,' Captain Crawley's, on pyramids, 389, essay on the marker, 443
- 'Billiard Review,' quoted, on the Association Rules, 377
- Billiard rooms, 63-65, in Oriental Club, 65; 66, 67, Mr W H Fowler's room, 67, Mr A Gibbs', 68, 69, ventilation of, 69-74, lighting of, 74-76, Major Broadfoot's note on, 75, 76
- Billiard-tables, 5, 10, 11, 15, 77, pockets, 77, Billiard Association legislation, 78; Standard Association tables, 79; cost, 80, ordinary, 81, championship, 81, 91, 364-375, frames, 81, slates, 81-85; plan of table in diagram, 82, 83, cushions, 85-87, cloths, 87-88, setting up the table, 88 91, brushing and mousing, 91-92; undersized, 92, spot-stroke, 93, French tables, 93, hiring, 93, automatic returner, 94; few in London clubs fit for play, 215, easy and difficult—in training, 308
- Billiard terms in use, 113-115
- Black and pink pool, description of game, 421, variation in rules, 421, collecting stakes, 422, a useful bye-law, 422
- Black pool, 406, 416, no regular laws, 416, the game as generally played, 418; special features, 418; variation in rules, 419, points to be held in view, 420
- Blind pockets, playing hazards into, 154, 158
- Bonzoline balls, 99, 100, suitable for pool or pyramids, 100; playing hazards with, 178, difference between ivory and, 268; playing double-baulk strokes with, 295
- Bouclée*, formation of the bridge, 117, 137

CAN

- Bowles, Alfred, 23, his matches with Roberts, jun., 23, 33, 369
- Boyd, Mr A H, 3, aid from, 3, on implements, 63-111, on 'Every day Billiards,' 317-327
- Break, definition of, 113, higher signification of, 302, average—in classifying players, 304, personal questions: luck and nerve, 305-308, advice to players who cannot undertake close study, 309-315, advice to a higher class of players, 315, Mr Boyd's advice to moderate players, 317-327, —at the top of the table, by Mr Rumington-Wilson, 327-350, nursery cannons, 350-363
- Breaking the balls, explanation of the phrase, 113
- Bricole*, utility of, 180; stroke, 245
- Bridge, the term, 113; a good, 116, 117; a short, 135; *bouclée*, 137
- Brighton, Kentfield's Subscription Rooms, at, 10
- Broughton, Tom, beaten by Roberts, sen., 16
- Brunswick-Balke-Collender Co the, cited, 220, 438
- Brushing tables, 91
- Buchanan, J P, 268
- Buckland, Frank, test for balls, 98
- 'Bumble-puppy,' 428
- Burners, gas, for billiard-rooms, 75
- Burroughes and Watts, aid from, 4, 63; tournaments managed by, 60, 61, 62, first series of handicaps, 36, 40, 85, 106
- Butts, 105
- CANNONS, plain, 180 194; tendency to supersede losing hazards, 180; 'general rules

GAR

- for strength in playing, 182, easier than the hazard, 183, in baulk, 218-220, use of compensation in making, 263-264, nursery, easy of execution, 328; 350-363
- Gair, John, 5, sells twisting chalk, 7, 8, backed against all comers, 9, challenged by Kentfield, 10
- Garter, Eugene, American player, 53; death of, 54
- Cathie More, King of Ireland, his brass billiard balls, 4
- Caxton Hall, Westminster, 60
- Chalk, 91, 106, 107, St Martin, 107
- Championship, the, &c., 364-375, Mr Russell D Walker's memorandum on, 369-372
- Championship matches, remarks concerning, 364-368, list of, 375
- Championship table, the, 81, 91, pockets, 364, play on, 372-375, objections to different tables for ordinary play and for championship matches, 366; genuineness of game, 367, equalisation of amateurs on a, 374, record of championship matches, 375
- Chimneys of lamps for lighting billiard-rooms, 74
- Close screws, method of playing, 252
- Cloths for billiard tables, 87, nap of, 201, effects on rotation and path of ball, 215
- Club billiard-rooms, 64; over-ironing of cloth in, 215
- Coles, Harry, 48, 49
- Collins, George, 36, 38, 39, 48
- Combination tables, 93
- Compensation in play, 262
- Composition balls, 99, 100
- Cook, William, 20, 23, 24, Roberts, sen's, opinion of, 25; first match with and defeat by Roberts, jun, 27, beats him later, 28, rapid

CUN

- nise, 28; beats Roberts, sen, for championship, 29-31; remarkable breaks, 33, 34; loses championship to Roberts, jun, 33, 41, zenith of his career, 34, 35, 36; wins handicap, 36, 39, 40, beaten by Roberts, jun, 41, 42, 43, 46, beaten by Joseph Bennett in championship match, 46, beats and beaten by Roberts, jun, 47, 50, unrivalled style, 128, on the spot stroke, 267, 268, 270, strength and execution, 372, pool record, 410
- Cook, jun, 58, 60, 61, 62, 100
- 'Cork Marker,' the, his match with Carr, 9
- Cork pool, description of, 427, variation in play, 428, bumble-puppy, 428
- Corrugated iron billiard-rooms, 67
- Cotton's 'Compleat Gamester,' 5
- Country-house games, 427-433
- Coup, to run a, explanation of phrase, 113
- Coups durs*, 113, 232
- Courtney, Mr, 60
- Covei, meaning of the term, 113
- Cox and Yeaman's rooms, 62
- Crawley, Captain, on pyramids, 389, quotation about marker from his billiard book, 443
- Crystallate balls, 58, Mr Rimington-Wilson's remarks concerning, 100
- Cues, &c., 101-111; French butt, 101; English butt, 101, tips, 103, 104, jointed, 104, 386, splicing, 105, mechanical accuracy in delivering, 123-137; hold of, 123, use of—in the follow, 204, in the screw-back, 210, in applying side, 211; 'power' of, 317; necessity for accurate delivery of, 326
- Cunningham, Colonel Allan, R E, aid from, 3

CUS

- Cushion-crawling, 285
 Cushion nursery cannons, 350-363, breaks of—often spurious, 365
 Cushions, 85, covering with cloth, 89, difficulty of square-cut, 153, side acquired by friction with, 214; nurseries, 350-363
 'DAILY TELEGRAPH,' 55
 Davis, George, 25
 Dawson, Charles, 49, 51; defeated by Roberts, 55, winner of Billiard Association championship, 56, defeats Stevenson, 56, defeated by and defeats Stevenson, 57, defeats Diggle, 57, plays three matches with Stevenson and wins the second and third, 57, defeats Stevenson for the championship, 58, beats Diggle, 58, plays Stevenson, 59, plays in tournament, 60, 62, 128, simplicity of his game, 136; 369
 Defensive play, where advisable, 285
 Diagrams, explanation of, 146-147
 Diggle, Edward, 51, defeated by Stevenson, 56, beaten by Dawson, but makes a break of 510 against Reece, 57, defeated by Dawson, 58, in 1905-6 tournament, 61; 62, 128, 369
 Double baulk, 113
 Doubles, value of, 158, in baulk, 158, simple, 160, 396, 398, 411, 414
 Drag strokes, 124, 204, used to overcome irregularities in ball or bed, 205
 Dufton, John, 20
 Dufton, William, 'tutor to the Prince of Wales,' 20, match with Roberts, sen, 22; his long jennies, 25, an over-rated player, 25

GAS

- Dufton's 'Practical Billiards, on skittle pool, 433
 Dummy balls, 109
 Duncan, plays Roberts, 59
 EGAN, Pierce, 9
 Egyptian Hall, 55
 Electric light in billiard-rooms, 69, 74, 75
 Elementary instruction, 112, mode of entering room, 112, technical terms, 112-114, attitudes, 115, formation of bridge, 116, 117, the bridge *bouclée*, 117, 137, cue delivery, 117; practice with one ball, 118-123; strength, 120, use of the rest, 121, 123, use of the half-butt and long-butt, 123; Mr. Pontifex's memorandum, 123-137, a remarkable amateur feat, 124, 134
 English butt, 101
 Erection of billiard-table, 88
 Etiquette of the billiard-room, 3, 112, 386, 438-440
 Evans, Harry, 25, 26; champion of Australia, 39
 FATHER stroke, 372
 Fleming, John, defeats Roberts, sen, 16
 Follow, the, importance of, 202, increasing artificially, 203, chief use, 204
 Forcing hazards, 178
 Ford, Mr., on markers, 426; 442
 Foul, definition of a, 113
 Four-handed game, a ladschool, 320, a substitute for, 437
 Fowler, Mr. W II, his outside billiard-room, 67, 111
 French butt, 101
 French players on the game, 1
 GAIETY Restaurant, matches at, 41, 43
 'Game of Billiards,' Kentfield's, 10
 Gas in billiard-rooms, 69

GAT

- Gate-money, 367, 368
 Gibbs, Mr A, his billiard-room at Tyntesfield, 69
 Gillow's tables, 15
 Green, W E, 25, 53
 Guildhall Tavern, matches at, 37

HALF-BUTTS, 105

Handicaps, 36, 39, American system of, 40, 41, 43; 434, the same guiding rules for framing, 437

Harverson, 55, beats Inman, 58; plays Bateman, 58, beaten by Roberts, 59; plays in tournament, 60, in 1905-6 tournament, 61, 62

Hazards, winning, 150-161; 322, 402, plain strokes, 150, middle pocket, 167, 420 *See* Losing

Herst, John, 21, 22, 25

Hirng billiard tables, 93

Hitchin, W C, 25

Hughes, Alfred, 25, 26, 36, 39

Hughes, Charles, 23, 24, 25, 26, 27, 369

IMPACT, divergence between point of aim and point of, 141-149; points of, 151; rebound following, 172, 175

Implements of the game, 63 *et seq*

In hand, definition of the term, 113

Incandescent gas light, 74

India-rubber cushions, 85

Inman, 55; style of play, 56, defeated by Harverson, 58; beats Roberts, 59; plays in tournament, 60; in 1905-6 tournament, 61; 62

Ironing billiard-table cloths, 87, 88, 91, 92

Ives, Frank, his matches with Roberts, jun, 53, 367, 374, 56, cannon play, 361, makes 1,267 consecutive cannons, 371; death of, 54

MAR

Ivory balls, 94; expense of, 99, differ from bonzoline 268, 295

JENNIES, 168; method of playing, 242

Jump stroke, 252

KENTFIELD, Edwin (otherwise Jonathan), champion, 10; his improvements, 10; his book, 11; his game, 11, 12, 13, 14, 15, interviewed by Roberts, sen, 17, 18, refuses to play Roberts, 19, 369

Kerkau, a remarkable German player, 56

Kilkenny, Lewis, 25, 36, 38, 40

Kiss, the term explained, 113, mode of playing the—stroke, 232; 404

Knightsbridge, matches at, 53

LADIES, billiards as a game for, 437, 438

Lamps, oil, for lighting billiard-rooms, 74

Leap stroke, method of making, 252

Lighting billiard-rooms, 74, 90

Lloyd, winner of 1895 Association Tournament, 54

Long-butts, 105

Losing hazards, short and long, 161-180; half-ball strokes, 162, 164, middle-pocket, 166; jennies, 168; long, 170; care required in playing, 176; forcing, 178; inferiority to winning hazards, 180; by use of follow, 226-229; 373

Luck in playing, 305

MACK, 58

M'Neill, Hugh, 51, death of, 54

Mannock, J P, 52

Mardon, Mr., writer on billiards, 8, 12, 17, 18, 19, 20

MAR

- Maiker, duties of the, 410, 412, 413, 426, 427, 442, 443, services should be devoted to game and players alone, 443, 444
- Marking-boards, 107, nickel-plated, 108
- Massé* stroke, method of playing, 257, 355, 358
- Matches, championship, 375
- Measurements in billiards, approximate, 154, how made, 155
- Memmott, Charles, champion of Australia, 26, 39, record of screw-back spots, 48; 52; defeated by Weiss, 56, 276
- Miss, must be played with the point of cue, 286
- Miss cue, meaning of the term, 114
- Mitchell, William, 43-46, as spot player, 44-48, beaten by Roberts, jun, even, 50; 52; plays Roberts, 56, 58, in 1905-6 tournament, 61; 369
- Mode of entering a billiard-room, 112, 439
- Morris, Tom, 25, 26, 39
- Moss, W, 35
- Mulberry, George, 25
- NAP of cloth, effect of playing with or against, 201, 215, 216, 272
- Nearest ball pool, 429
- 'Nell Gwynne,' Strand, match at, 24
- Nerve in playing, 3, 307-308
- North, John, his style, 47, 48, 127; death of, 54
- Nursery cannons, 350-363, value of — on three inch pocket table, 365
- OIL lamps for lighting billiard-rooms, 74
- One-ball practice *See* Elementary instruction
- Oriental Club, plan of room, 65, 70

POO

- Osme & Sons, their automatic arrangement for returning balls, 94, 325
- Osborne, 58
- Over-caution in playing, evils of, 320
- Partie Américaine dite du cadre*, 366
- Peall, W J, aid from, 4, 44; remarkable breaks, 45, 46, 48, defeats Roberts, jun, 49, 50, present position, 51; 52, 54, defeats Roberts, 55; 58; weight of his cue, 102, consecutive screw-back spot strokes, 276, 284, turning a corner at cushion nurseries, 361, 369
- Peall cushion rest, 106 "
- Pendleton, Tom, 16
- Penrhyn slates, 81
- Pipe-clay for marking baulk-lines, 91
- Piqué* strokes, mode of playing, 258
- Plain strokes, 150-196
- Plan of billiard-table, 82, 83
- Plants, definition of, 114; method of playing, 245, 246, laws which govern them unknown, 248; in pyramids, 398
- Players, system of classifying, 304, difference in, 305; luck, 305
- Pockets of billiard-tables, 11, 77, blind, 154, 158, Billiard Association standard, 364, 370
- Pontifex, Mr Dudley D, aid from, 3, memorandum by, 123-137, 324, 325
- Pook, John, Kentfield's manager, 18
- Pool basket, 109, 255-256
- Pool, importance of playing for position in, 153, useful as winning hazard practice, 322; description of the game, 406, rules and penalties, 408; safety and hazards, 409; starrng, 409, playing for

POR

- cannons, 409; measuring distances, 410; marker's duty, 410; the opening stroke, 410; Cook's record, 410; doubles, 158, 398, 411; story concerning consecutive doubles, 411; anecdote about sharpers, 411, 412; for other varieties of the game, *see* Black pool, Black and pink, Cork, Nearest ball, Selling, Single, Skittle, Snooker, Three pool
 Porker, Mr., his match with Mr Mardon, 12
Position mère, 331, 353
 'Practical Billiards,' Dufton's, on skittle pool, 433
 Pratt, his style, 9, match with a stranger, 10
 Precautions in play, 261
 Prince of Wales, the *See* Wales, Prince of
 Prince of Wales's Hotel, Moss Street, Manchester, matches at, 28
 Professionals, rate of scoring, 309
 Push stroke, the, 52, 370
 Pyramids, 33, 58; importance of playing for position in, 153; doubles, 158; general hints concerning, 386; salient points of the game, 387; rules regarding, 388; handicapping players, 388; setting up the balls, 389; ways of playing the first stroke, 389; safety, 390; making a series of hazards, 390; plants and doubles, 392; when the object ball is close to a cushion, 394; useful strokes, 394-404; good break by an Undergraduate, 405

QUEEN'S Club, 124

Quill stroke, 372

RAE, T, defeated by Aiken for championship of Scotland, 58

ROB

- Rebound following impact, 172, 175
 Reece, plays Diggle, 57, acts as referee in match between Dawson and Stevenson, 57, 58; defeats Roberts, 59; plays in tournament, 60; in 1905-6 tournament, 61; 62
 Referees, duties of, 441, 442
Rencontres, 113, 234
 Rests, 106, 123
 Richards, matches with Roberts, sen, 369
 Richards, D, 25, 27, 41, 54, 128
 Right-angled screw, the, 206
 Rimington-Wilson, Mr R H. R., aid from, 4, on crystalate balls, 100, on the top-of-the-table game, 327; on cannon nurseries, 361; on the professional championship, 368
 Roberts, John, jun, 11, 23, 25, 26, 27, 28; beats Cook for the championship, 33; beats A Bowles, 33; beaten by Joseph Bennett, 34; defeats Bennett, 33, 34, 40; again beats Cook for championship, 41, 43, 46, in India, 47; defeats and is beaten by Cook, 47; 48, beaten by Peall, 49; beats Cook and Joseph Bennett for championship, 50, beats Mitchell, 50; beaten by Peall, spots only, 50, challenged by Peall, 51, his wonderful play, 51, matches with Ives, 53, 361. 367; his long spot-barred breaks, 54; defeated by Peall, 55; defeats Dawson, 55; beats and is beaten by Weiss in Australian tour, 56, 58, returns from tour and is beaten by Aiken and Reece, 59, beats Haiverson, 59; plays Duncan, 59; loses two games to Inman and one to Aiken, 59, 60; beaten by Stevenson, 60, in 1905-6 tournament.

ROB

61, excellent showman and great favourite, 62, weight of his cue, 102; admirable cue delivery, 124, ease and grace of style, 127, skill, 129, 133, 135, 136, 220, 270, good at the spot stroke, 276; 372, offer to assist in recasting rules of the game, 377

Roberts, John, sen, 12, 13, contrasted with Kentfield, 14, 15; rapid rise, 16, taught the spot stroke by Mr Lee Birch, 16, interviews Kentfield, 17, 18; champion, 19; 21, lessee of Saville House, Leicester Square, 22, his famous break of 346 in a match with William Dufton, 22, matches with Alfred Bowles and Charles Hughes, 23, 24; 26, 28; defeated by Cook, 31, endurance match with an amateur, 32, 369

Rotation of ball, 197-222, cause of, 200, round horizontal axis forward, 202; backward, 204, round vertical axis, 210

Royal Aquarium, Westminster, 43, 44, 45, 49, 50, 370

'R.-W Billiard Diagram Notebook,' 396

Rudolph, match with Cook, 40

Rules of billiards, 376, defective character, 376; proposed revision, 377; penalties for infringing, 377, suggestions respecting, 378-384, discriminating between the act of aiming and the act of striking, 378; playing a miss otherwise than with the point of the cue, 379; playing with the wrong ball, 380; foul strokes, 380; when player's ball touches another ball, 381; offences committed by persons other than the players, 382; spectators offering advice, 377, 382;

SNO

obstructing player, 382; obstruction of the striker by the non-striker, 383, how far the marker may assist either player, 383

SAFETY, when to be sought for, 285, pocketing an adversary's ball, 287; double baulk, 292

St James's Hall, 30, 47, 370

St Martin chalk, 107

Sala, J G, record of consecutive screw-back spots, 48; 276, death of, 54

Samson, Mr, architect, 68, 70; designs by, 72-73

Scoring, different rate of, between amateurs and professionals, 309

Screw, the, 204, 205, 249; right-angled, 206, regulation of strength necessary in playing, 206, importance of regulating, 208, close, 252

Selling pool, principle of the game, 427

Seymour, William, 124

'Shaiping' in billiard-rooms, 411, 412

Shell-out, the game of, 405, 406

Shorter, Fred, wins love game from Bennett, 41-42, beats Cook, 42; beats Taylor, 42, forfeits to Bennett, 47

Side, transmission of, 202, 210; acquired by friction with cushion, 214; imparting, 317; can it be communicated by one ball to another? 441. *See* Rotation

Skittle pool, description of, 429; rules, 430; usual way of playing, 432

Skylight sashes for ventilating billiard-rooms, 70

Slates for billiard-tables, 81-85

Smoking in billiard-room, 440

Snooker, 406, variations in rules, 422; general method of play, 422; penalties, 423, 424; main object of player,

SPI

- 425, the element of luck, 425
 Spiller, William, 52, death of, 54
 Spot stroke, the, 11, 16, agitation against, 39, result of barring, 180, constant practice required for success, 266; danger of using, 267, its genuineness, 268, ivory and bonzoline balls in playing, 268, use of chalk, 269, method of playing, 270; its limits, 271; the screw-back, 275, the stab, 278, must be taught by a master, 281; methods adopted to continue break or obtain safety, 281, invaluable as practice for winning-hazard play, 284, 322
 Spot-barred breaks, 45, 322
 Spot-stroke tables, 93
 Spots, inadvisability of altering, 161
 Stab, the, use of in playing cannons, 190, and spot stroke, 278
 Stakes, advantages and disadvantages of playing for, 434
 Stammers, 36, 39
 Standard Association tables, 79
 Stanley, S W, 25, 33, 36, 37, 38, 39, 40, 41
 Starke, defeated by Roberts, sen, 19, further matches with him, 21
 Stevenson, H W, 27, 52, defeats Diggle but is beaten by Dawson, 56, defeats and is defeated by Dawson, 57, plays three matches with Dawson and wins the first, 57, is defeated by Aiken, 58; beaten by Dawson for the championship, 58, plays Dawson, 59, plays in tournament, 60; defeats Dawson and subsequently Roberts, 60, 62
 Strength, definition of, 114
 String, to, meaning of, 114

VUL

- Strokes, following, 202, screw, 204, 249; practising, 216; *masé*, 222, 257, miscellaneous, 223, fine, 230, *bricole*, 244, kiss, 232, jennies, 242, plants, 245, close follow, 232, close screws, 232, 252, leap or jump, 252; *piqué*, 257, 258, compensations, 262, spot, 266
 Style, 120
 'Sydney Referee's' remarks concerning Weiss's play in Roberts' Australian tour, 56

- TABLES *See* Billiard-tables
 Taylor, Tom, 36, 37, 39, 40, 41, 42, 44, 47, 48, 54, 370
 Templates, 79
 Terms, billiard, technical, explained, 112-114
 Three-ball practice, 150 *et seq*
 Three-inch-pocket table *See* Championship table
 Three-pool, 411, strange occurrence at, 411, principles of the game, 413, 414
 Thurston, John, 10, his improvement of tables, 11
 Thurston & Co, 62, 63
 Timbiell, William, 40, 43
 Tips of cues, 103, process of tipping, 103; cleaning, 103; renovating, 104
 Tobin tubes for ventilating billiard-rooms, 69
 Top-of-the-table game, the, 327-350
 'Twisting chalk,' Carr's, 7
 Two-ball practice, 138-149

UNION CLUB, Manchester, 14, 16

- VENTILATION in billiard-rooms, 67-74
 Vignaux, M, aid from his book, 3, cited, 197, 214, 261, 329, 353, 438
 Vulcanite cushions, 85

WAL

WALLES, Pounce of, 20, at championship match, 29; at match Roberts v Cook, Newmarket,

47

Walker, Mr Russell D., from, 3; on the championship, 368-372

Warming billiard-rooms, 68, 71

Weiss, 55, defeats Memmot and becomes champion o

WRI

Australia, 56, is beaten by and beats Roberts in the latter's Australian tour, 56; in 1905 6 tournament, 61,

62

White, Fred, 49

Wilson, R, 44

Winning hazards, 150 161; confidence required, 322

Wright & Co, 63, 79

THE BADMINTON LIBRARY

OF SPORTS AND PASTIMES.

Edited by HIS GRACE THE (EIGHTH) DUKE OF BEAUFORT, K.G.
and A. E. T. WATSON.

ARCHERY.

By C. J. LONGMAN and Col H WALROND With Contributions by Miss LEGH, Viscount DILLON, &c With 2 Maps, 23 Plates, and 172 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

ATHLETICS.

By MONTAGUE SHEARMAN With Chapters on Athletics at School by W BEACH THOMAS, Athletic Sports in America by C. H. SHERRILL, a Contribution on Paper-chasing by W RYE, and an Introduction by Sir RICHARD WEBSTER (LORD ALVERSTONE) With 12 Plates and 37 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

BIG GAME SHOOTING

By CLIVE PHILLIPPS-WOLLEY

Vol I AFRICA AND AMERICA With Contributions by Sir SAMUEL W BAKER, W C OSWELL, F C SELOUS, &c With 20 Plates and 57 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

Vol II EUROPE, ASIA, AND THE ARCTIC REGIONS With Contributions by Lieut -Colonel R HEBER PERCY, Major ALGERNON, C HEBER PERCY, &c With 17 Plates and 56 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net.

BILLIARDS.

By Major W BROADFOOT, R E A. H. BOYD, SYDENHAM DIXON, &c With 11 Plates, 19 Illustrations in the Text, and numerous Diagrams Crown 8vo cloth, 6s net, half-bound, 9s net

COURSING AND FALCONRY

Coursing By HARDING COX, thoroughly Revised by CHARLES RICHARDSON — *Falconry* By the Hon GERALD LASCELLES With 20 Plates and 55 Illustrations in the Text. Crown 8vo cloth, 6s net, half-bound, 9s net

CRICKET

By A G STEEL, the Hon R H LYTTETTON, ANDREW LANG, W G GRACE, &c With 13 Plates and 51 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

CYCLING.

By the EARL OF ALBEMARLE and G LACY HILLIER With 19 Plates and 44 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

DANCING.

By Mrs LILLY GROVE, FRGS Miss MIDDLETON, the Hon. Miss ARMYTAGE, &c With Musical Examples, and 38 Full-page Plates and 93 Illustrations in the Text. Crown 8vo cloth, 6s net, half-bound, 9s net

DRIVING.

By His Grace the (Eighth) DUKE OF BEAUFORT, K G, A E T WATSON, the EARL OF ONSLOW, &c With 12 Plates and 54 Illustrations in the Text Crown 8vo cloth, 6s net, half bound, 9s net

LONGMANS, GREEN, & CO LONDON, NEW YORK, AND BOMBAY.

THE BADMINTON LIBRARY

OF SPORTS AND PASTIMES.

Edited by HIS GRACE THE (EIGHTH) DUKE OF BEAUFORT, K G and
A E T WATSON.

FENCING, BOXING, AND WRESTLING

By WALTER H POLLOCK, F C GROVE, C PREVOST, E B MITCHELL,
and WALTER ARMSTRONG With 18 Plates and 24 Illustrations in the
Text Crown 8vo cloth, 6s net, half-bound, 9s net

FISHING

By H CHOLMONDELEY-PENNELL.

Vol I SALMON AND TROUT With Contributions by H R FRANCIS,
Major JOHN P TRAHERNE, &c With 9 Plates and numerous Illustrations
of Tackle, &c Crown 8vo cloth, 6s net, half-bound, 9s net

Vol. II PIKE AND OTHER COARSE FISH With Contributions by
the (Fourth) MARQUIS OF EXETER, WILLIAM SENIOR, G CHRISTOPHER
DAVIS, &c With 7 Plates and numerous Illustrations of Tackle, &c
Crown 8vo cloth, 6s net, half-bound, 9s net

FOOTBALL.

History By MONTAGUE SHEARMAN — *The Association Game* By W J.
OAKLEY and G. O SMITH — *The Rugby Union Game* By FRANK
MITCHELL With other Contributions by R. E MACNAGHTEN, M C.
KEMP, J. E. VINCENT, WALTER CAMP, and A SUTHERLAND With
19 Plates and 35 Illustrations in the Text Crown 8vo cloth, 6s net, half-
bound, 9s net

GOLF

By HORACE G HUTCHINSON. With Contributions by the Right Hon A J
BALFOUR, M P Sir WALTER SIMPSON, Bart ANDREW LANG, &c With
32 Plates and 57 Illustrations in the Text. Crown 8vo cloth, 6s net, half-
bound, 9s net

HUNTING.

By His Grace the (Eighth) DUKE OF BEAUFORT, K G MOWBRAY MORRIS,
the (Eighteenth) EARL OF SUFFOLK AND BERKSHIRE, G H LONGMAN,
&c With 5 Plates and 54 Illustrations in the Text. Crown 8vo cloth,
6s net, half-bound, 9s net

MOTORS AND MOTOR-DRIVING.

By Sir ALFRED C HARMSWORTH, Bart the MARQUIS DE CHASELOUP-
LAUBAT, the Hon JOHN SCOTT-MONTAGU, R J MCCRERY, the Hon
C S ROLLS, Sir DAVID SALOMONS, Bart, &c With 14 Plates and
160 Illustrations in the Text Crown 8vo cloth, 9s net, half-bound, 12s net.
A Cloth Box for use when Motoring, price 2s net

MOUNTAINEERING

By C T DENT, Sir W M CONWAY, D. W. FRESHFIELD, &c With
13 Plates and 95 Illustrations in the Text Crown 8vo cloth 6s net, half-
bound, 9s net

POETRY OF SPORT (THE)

Selected by HEDLEY PEEK With a Chapter on Classical Allusions to Sport
by ANDREW LANG, and a Special Preface to the BADMINTON LIBRARY
by A E T WATSON With 32 Plates and 74 Illustrations in the Text
Crown 8vo cloth, 6s net, half-bound, 9s net

RACING AND STEEPLE-CHASING

By the (Eighteenth) EARL OF SUFFOLK AND BERKSHIRE, W G CRAVEN,
the Hon F LAWLEY, ARTHUR COVENTRY, and A E T WATSON. With
Frontispiece and 56 Illustrations in the Text. Crown 8vo cloth, 6s net,
half-bound, 9s net

LONGMANS, GREEN, & CO. LONDON, NEW YORK, AND BOMBAY.

THE BADMINTON LIBRARY

OF SPORTS AND PASTIMES.

Edited by HIS GRACE THE (EIGHTH) DUKE OF BEAUFORT, K G and
A E T. WATSON

RIDING AND POLO.

By Captain ROBERT WEIR, the (Eighth) DUKE OF BEAUFORT, the EARL OF ONSLOW, &c With 18 Plates and 41 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

ROWING

By R P P ROWE and C M PITMAN With Chapters on Steering by C P SEROCOLD and F C BEGG, Metropolitan Rowing by S LE BLANC SMITH, and on PUNTING by P W SQUIRE. With 75 Illustrations Crown 8vo cloth, 6s net, half-bound, 9s net

SEA FISHING.

By JOHN BICKERDYKE, Sir H W GORE-BOOTH, Bart Sir ALFRED C HARMSWORTH, Bart and W SENIOR With 22 Full-page Plates and 175 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

SHOOTING

Vol I FIELD AND COVERT. By LORD WALSINGHAM, Sir RALPH PAYNE-GALLWEY, Bart the Hon GERALD LASCELLES, and A J STUART-WORTLEY With 11 Plates and 95 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

Vol II MOOR AND MARSH By LORD WALSINGHAM, Sir RALPH PAYNE-GALLWEY, Bart LORD LOVAT, and LORD CHARLES LENNOX KERR. With 8 Plates and 57 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

SKATING, CURLING, TOBOGGANING

By J M HEATHCOTE, C G TEBBUTT, T MAXWELL WITHAM, &c With 12 Plates and 272 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

SWIMMING.

By ARCHIBALD SINCLAIR and WILLIAM HENRY With 13 Plates and 106 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

TENNIS, LAWN TENNIS, RACKETS AND FIVES.

By J M and C G HEATHCOTE, & O PLEYDELL-BOUVERIE, and A C AINGER. With Contributions by the Hon A LYTTTELTON, W C MARSHALL, Miss L DOD, &c With 12 Plates and 67 Illustrations in the Text. Crown 8vo cloth, 6s net, half-bound, 9s net.

YACHTING.

Vol I CRUISING, CONSTRUCTION OF YACHTS, YACHT RACING RULES, FITTING-OUT, &c By Sir EDWARD SULLIVAN, Bart the (Thirteenth) EARL OF PEMBROKE, LORD BRASSEY, KCB R T. PRITCHETT, E F KNIGHT, &c With 21 Plates and 93 Illustrations in the Text Crown 8vo cloth, 6s net, half-bound, 9s net

Vol II YACHT CLUBS, YACHTING IN AMERICA AND THE COLONIES, YACHT RACING, &c By R T. PRITCHETT, the MARQUIS OF DUFFERIN AND AVA, KP the EARL OF ONSLOW, &c With 35 Plates and 160 Illustrations in the Text. Crown 8vo cloth, 6s net, half-bound, 9s net

LONGMANS, GREEN, & CO. LONDON, NEW YORK, AND BOMBAY.

FUR, FEATHER, AND FIN SERIES.

Edited by A. E. T. WARSON.

Crown 8vo price 5s each Volume, cloth

²/₄ The Volumes are also issued half-bound in Leather, with gilt top

Price 7s. 6d net each

THE PARTRIDGE

Natural History By the Rev H A MACPHERSON — *Shooting* By A J STUART-WORTLEY — *Cookery* By GEORGE SAINTSBURY With 11 Illustrations and various Diagrams in the Text

THE GROUSE.

Natural History By the Rev H A MACPHERSON — *Shooting* By A J STUART-WORTLEY — *Cookery* By GEORGE SAINTSBURY With 13 Illustrations and various Diagrams in the Text

THE PHEASANT

Natural History By the Rev H A MACPHERSON — *Shooting* By A J STUART-WORTLEY — *Cookery* By ALEXANDER INNES SHAND With 10 Illustrations and various Diagrams

THE HARE

Natural History By the Rev H A MACPHERSON — *Shooting* By the Hon GERALD LASCELLES — *Coursing* By CHARLES RICHARDSON — *Hunting* By J S GIBBONS and G H LONGMAN — *Cookery* By Col KENNEY HERBERT With 9 Illustrations

THE RABBIT.

By JAMES EDMUND HARRING — *Cookery* By ALEXANDER INNES SHAND With 10 Illustrations

THE SALMON

By the Hon A E GATHORNE-HARDY With Chapters on the Law of Salmon Fishing by CLAUD DOUGLAS PENNANT — *Cookery* By ALEXANDER INNES SHAND With 8 Illustrations.

THE TROUT

By the MARQUESS OF GRANBY With Chapters on the Breeding of Trout by Col H CUSTANCE, — *Cookery* By ALEXANDER INNES SHAND With 12 Illustrations

PIKE AND PERCH

By WILLIAM SENIOR ('Redspinner,' Editor of the *Field*) With Chapters by 'JOHN BICKERDYKE' and W. H. POPE — *Cookery* By ALEXANDER INNES SHAND With 12 Illustrations.

RED DEER.

Natural History By the Rev H A MACPHERSON — *Deer Stalking* By CAMERON OF LOCHIEL — *Stag Hunting* By VISCOUNT EBRINGTON — *Cookery* By ALEXANDER INNES SHAND. With 10 Illustrations by J CHARLTON and A THORBURN

SNIFE AND WOODCOCK.

By L H DE VISMÉ SHAW With Chapters on Snipe and Woodcock in Ireland by RICHARD J USSHER — *Cookery*. By ALEXANDER INNES SHAND With 8 Illustrations by A THORBURN and C WHYMPER

WILD FOWL.

By L H DE VISMÉ SHAW With Chapters on Shooting the Duck and the Goose by W H. POPE — *Cookery* By ALEXANDER INNES SHAND With 8 Illustrations by ARCHIBALD THORBURN and CHARLES WHYMPER

LONGMANS, GREEN, & CO. LONDON, NEW YORK, AND BOMBAY.